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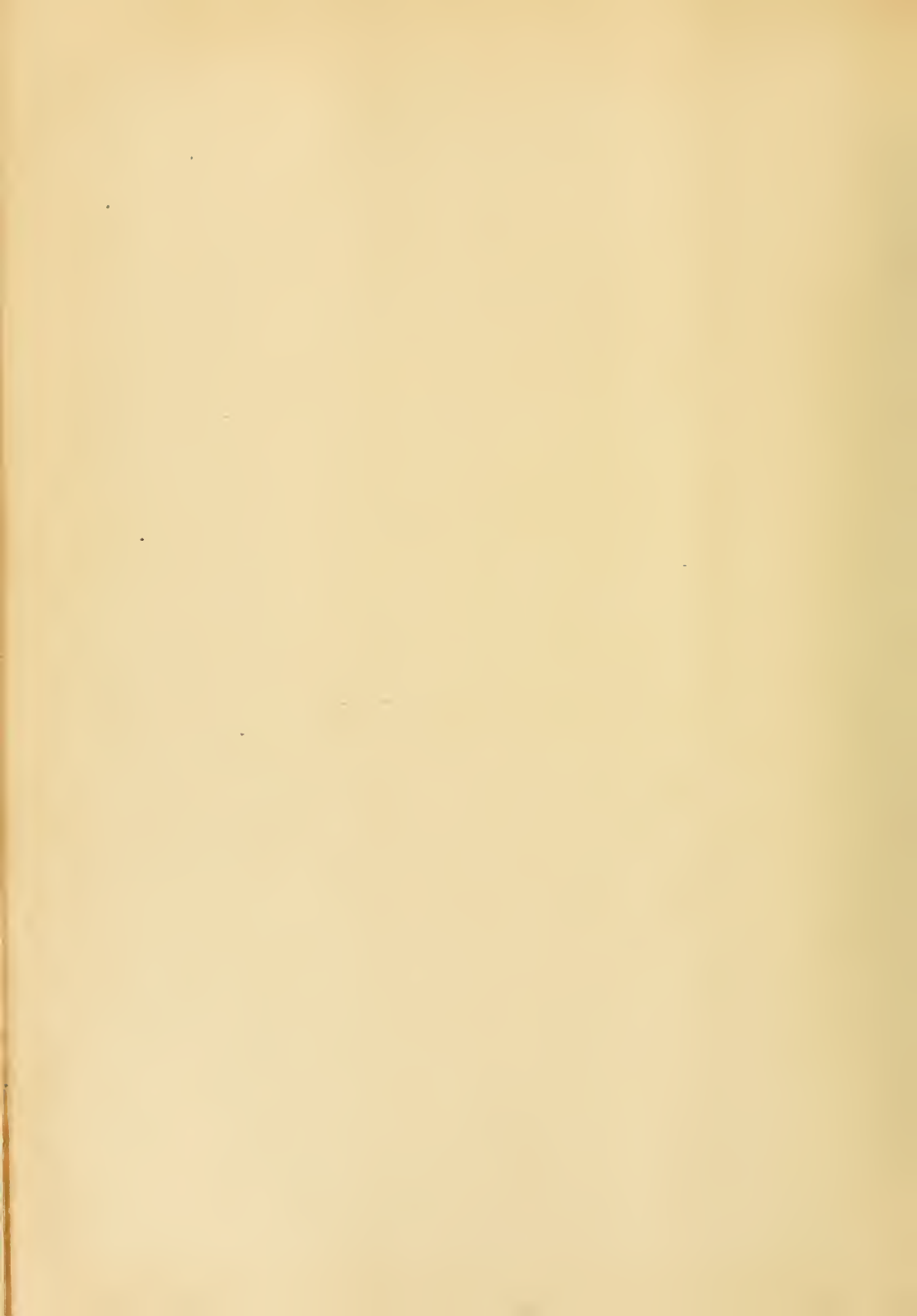
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THE—

 AMERICAN 

—— FLORIST.

A SEMI-MONTHLY JOURNAL FOR THE TRADE.



VOLUME V.





CHICAGO:
AMERICAN FLORIST COMPANY.
1890.

VOLUME V.

TABLE OF CONTENTS.

Illustrations are indicated by an *

A	Basket of roses and snowballs.....	563	Caryopteris mastacanthus.....	112	Cut flower quotations.....	334	494	
<i>Abrus precatorius</i>	514	Bed of composites.....	506	Catalogue descriptions.....	12	Cut flower trade, The.....	394	494
<i>Abrus</i> a new flowerist, An.....	421	*Bed of decorative plants.....	131	Catalogue disease, The.....	44	Cut worms.....	320	367
<i>Acacia</i> , A mind.....	506	Bedding plants at Central Park, N. Y.....	42	Catalogue illustrations.....	68	*Cyclamen, The.....	538	585
<i>Aclypha</i>	306	<i>Begonia inaequalis</i> (rosea) grandiflora.....	227	Caterpillars.....	135	210	Cyclamens.....	65
A climber.....	520	<i>Begonia</i> Froebel.....	333	Cattleyas.....	9	Cyclamens as cut flowers.....	277	
<i>Adiantum concinnum</i>	512	* <i>Begonia</i> M. Charrat.....	85	*Cattleyas, Group of.....	9	Cycloloma platyphyllum.....	460	
* <i>Adiantum Farleyense</i>	513	* <i>Begonia</i> Clementina.....	84	<i>Centauria cyanus</i> fl. pl.....	400	Cypripedium, A double.....	366	
* <i>Adiantum pubescens</i>	252	* <i>Begonia</i> Time, Altamagny.....	85	<i>Cephalandra palmata</i>	403	Cypripedium caudatum roseum.....	396	
<i>Adonis vernalis</i>	264	* <i>Begonia</i> Mita, Irtal.....	85	<i>Cestrum thibetia</i>	403	Cypripedium trilobum.....	516	
<i>Ajuga</i>	454	* <i>Begonia</i> Siebold.....	85	Chestnuts.....	233	Cypripedium.....	516	
A climber.....	522	<i>Begonia</i> , New tuberous.....	565	Chicago 94, 14, 23, 28, 388, 388, 416, 404, 562, 517, 566, 566, 613.....		Cypripedium, Some rare.....	516	
<i>Albomanda grandiflora</i>	513	* <i>Begonia</i> , Some new.....	84	Chicago, First gardening in.....	310	Cyrtanthes.....	540	590
<i>Alum</i> Neopeltium.....	430	<i>Begonia</i> , Tuberous.....	158	Chicago notes and comments.....	257	389		
<i>Alyssum</i> , The golden.....	561	* <i>Begonia</i> , Tuberous—single.....	457	Chinese sacred lily.....	170			
<i>Alyssum saxatile</i>	37	* <i>Begonia</i> , Tuberous—double.....	457	Chinese matrimony vine.....	13			
<i>Amaranthus</i> Hendersoni.....	390	Bennett, Henry.....	517	<i>Chorizanthe varium</i>	362			
<i>Amaryllis</i>	510	<i>Benthania japonica</i>	592	<i>Christmas green</i>	25			
<i>Amaryllis</i> , The yellow.....	578	Berberis Thunbergii.....	132	Christmas roses.....	253			
<i>Amateurs</i> lament, The.....	158	Bonnets of natural flowers.....	576	Christmas roses.....	253			
<i>Amateur</i> vs. professional, The.....	323	<i>Boston 98, 99, 114, 140, 154, 196, 214, 226, 240, 277, 284, 293, 326, 336, 359, 458, 500, 505, 505, 612</i>	459	<i>Chrysanthemum</i> —A. Spaulding 5.....				
American Horticultural Society.....	637	<i>Boston meeting, Preparations for</i>	459	202, *Harry E. Widener 229, *Inodorum plenissimum 301, lacustre.....				
American National Chrysanthemum Society.....	637	Boston—spring exhibition.....	428	562, latifolium 562, Mary Edg 120, *maximum 329, *Mrs. Benj. Harrison 231, Mrs. Carey 201, multiculca.....				
American vs. foreign seed.....	598	Brick tea, The.....	497	400, 562, *Ostrich Plume" 367, segetum grandiflorum 510.....				
<i>Amelopsis Veitchii</i>	2 60	Buddiea.....	592	<i>Chrysanthemum</i> —Are they an injury? 325, Blooming in May 494, Boston notes 158, Cultural notes 4, Cutting down 512, Cut flowers for exhibition 512, *Exhibition in England 295, For Easter 435, In boxes 3, 513, Late blooming 254, Law case 120, New varieties of 1888-9-254, New for 1940 originating in Philadelphia 228, National society 136, 228, Notes on 512, Out of doors 185, Pink hairy 2.....				
<i>Andromeda</i>	112	400	562	Seasonable notes 4, 60, 514, 566, 618, Selection of varieties 301, Spilling the tea 229, Temporary houses for 138, *Vase of 226, Very early sorts 136.....				
<i>Andromeda floribunda</i>	163	Buffalo convention, Echoes from.....	592	<i>Chrysanthemum</i> shows—Baltimore 181, Boston 177, Chicago 153, Cincinnati 322, Germantown, Pa., 156, Hartford, Conn., 180, Indianapolis 150, New Bedford, Mass., 180, New Haven, Conn., 181, Montreal 156, Orange, N. J., 173, Philadelphia 175.....				
<i>Andromeda</i> speciosa.....	163	Buffalo convention S. A. F. The.....	25	Short Hills, N. J., 155, Springfield, Mass., 181, Worcester, Mass., 180, Other points 153, 181.....				
<i>Anemone</i> , Early flowering.....	384	Buffalo notes—Thorpe.....	82	<i>Crocodylus</i>	63			
<i>Anemone</i> Japanica.....	412	Buffalo notes—Falconer.....	101	<i>Crocodylus</i>	63			
<i>Anemone sylvatica</i>	412	Buffalo notes—Lindleyman.....	114	<i>Crocodylus</i>	63			
* <i>Anemone</i> , The pink Japan.....	517	Buffalo notes—class freight rates.....	45	<i>Crocodylus</i>	63			
<i>Antemias</i>	262	Bulbs, Duty on.....	228	<i>Crocodylus</i>	63			
<i>Antirrhinum album maximum</i>	555	Bulbs, The increase of.....	30	<i>Crocodylus</i>	63			
<i>Ants</i> and mealy bugs.....	59	Burned sods.....	30	<i>Crocodylus</i>	63			
<i>Ants</i> and plant life.....	59	Burning sods.....	30	<i>Crocodylus</i>	63			
<i>Apocynon distachyon</i>	432	Burning methods—Copeland.....	306	<i>Crocodylus</i>	63			
<i>Aqua ammonia</i> as a fertilizer.....	126	Bussey Institute, Notes from—W. F. 302.....	302	<i>Crocodylus</i>	63			
<i>Aquatic</i> house at Kimball's, Rochester.....	126	Buying on the co-operative plan.....	360	<i>Crocodylus</i>	63			
<i>Aquatic</i> plants in New York parks.....	45			<i>Crocodylus</i>	63			
<i>Aquatics</i> at Central Park, New York.....	45			<i>Crocodylus</i>	63			
<i>Aquilegia chrysantha alba</i>	470			<i>Crocodylus</i>	63			
<i>Aquilegia</i> Stuartii.....	470			<i>Crocodylus</i>	63			
<i>Aralia albidia</i>	394			<i>Crocodylus</i>	63			
<i>Ar. ucaria</i> fabricata.....	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>Crocodylus</i>	63			
<i>Arisaema</i>	470			<i>C</i>				

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54, Mme. Falcot 396, 562, Mme. Georges Brunt 562, Mme. Hoste 201, 279, 395, *431, Marchioness of Lorne 62, Mrs. DeGraw 593, Merveille de Lyon 562, Meteor 201, 279, 394, 562, Papa Gontier 184, 631, Princess de Sagan 396, Solitaire 257, Souvenir d'un Ami 397, Souvenir de Wootton 295, 278, 394, 564, 540, 494.	459
Roses—"A contrast".....	459
-American Beauty—Mme. Ferdinand Jamie.....	42
-Best hybrids for New York market.....	562
-Best six.....	278
-Coming blind.....	206
-Cultural notes—Whittle.....	162
-Foreign notes.....	62
-Fumigating.....	266
-Houses in June and July.....	65
-Houses, Pitch of roof for.....	334
-Hybrid remontants for early forcing.....	616
-In solid beds.....	279
-Keeping down mildew in summer.....	42
-Long Island notes—Whittle.....	304
-Most suitable varieties—May.....	431
-New Jersey notes—Taplin.....	132
-Notes at Bayside, L. I.....	304
-Notes on new.....	230
-Pale color in Perle buds.....	153
-Perle and Niel.....	378
-Plants, How to ship.....	132
-Planting in houses.....	564
-Plants for forcing.....	602
-Shading houses.....	564
-Seasonable notes.....63, 88, 265, 230	564
-Staking.....	231
*Rose beetle, Fu lers.....	304
Rose bugs, Quassia for.....	231
Rose grower's song, The.....	184
*Rose plant house, The.....	544
Rose yellows, The.....	440
Rubber packing for hot water pipes.....	233
Rudbeckia speciosa (Neumann).....	89
Ruellia macrantha.....	61
Rumex roseus.....	400

S

St. Louis.....	146
St. Paul.....	18, 220
Salvia Pitcheri.....	138
Salvia splendens var. Bruanti.....	331

Salvias.....	303
Salvias, New.....	401
San Francisco.....	524, 567
Sarcocolla purpurea.....	502
Savage, George.....	49
Saxifraga McNabiana.....	565
Saxifragas.....	432
Scientific education—J. Taplin.....	298
Scientific education for florists.....	68, 310
Scientific education for gardeners etc.....	82
Scientific education for gardeners—Allen.....	120
Scleria.....	339
Seed novelties, Notes on—Falconer.....	400
Seed Trade Association meeting.....	550
Seeds in dated papers.....	410
Seedsmen at Saratoga, The.....	574
Sedum Sieboldii.....	138
Self education.....	350
Shaw, Henry, Death of.....	43
*Show house, A small.....	427
Shrubs in bloom July 4.....	592
*Shrubs, Two valuable.....	565
Shrubs, Some variegated leaved.....	415
*Sifting soil.....	487
Silene Armeria.....	561
.....	385
Snails.....	532
Snowdrops.....	393
S. A. F. executive committee meeting, Boston.....	275
Society of Indiana Florists.....	351
Society of Minnesota Florists.....	418
Soft coal and brick fires.....	532
Solanum jasminoides.....	138
Soloman's seal.....	450
Some decided novelties.....	450
Spaghnum for plants.....	208
Sparmannia Africana.....	303
*Spider lily, The.....	257
Spider lily, The.....	231
Spiraea Cantoniensis E. pl.....	331
Spiraea Japonica var. Bumalda.....	112
Spiraea Japonica aurea reticulata.....	470
Spiraea Thunbergii.....	183, 490
Spiraea.....	592
*Spooners, Wm. H.....	155
Sport, What is a.....	159
Sports—Philadelphia.....	604
Springfield, Mass. exhibition.....	582
Spring plant trade, The.....	350, 594
Starting novelties.....	594
Steam heating.....	404, 462, 550
Steam vs. hot water—Burton.....	139

Steam vs. hot water—trial.....	462
Stellaria Holostea.....	432
Stephanotis in cool house.....	112
Step in the right direction, A.....	694
Sternbergia lutea.....	138
Stocks, East Lothian.....	614
Stuartias.....	592
*Stewart, William J.....	211
Sulphur as a fungicide.....	486
Summer bloom ng flowers—Whittle.....	162
*Summer decoration.....	385
Sunflower, Maximilian's.....	138
Sunflowers, Miniature.....	19
Sunflower, New miniature dwarf.....	592
*Sunset plant, "The.....	133
Symplocos paniculatus.....	43
Syringas.....	540

T

*Table decoration.....	459
Tamarix africana.....	540
Tariff on plants, A.....	438
Tecoma radicans var. grandiflora.....	63
Temperature of water for plants.....	440
Ten-week stocks.....	561
*"The Gates," South Park, Chicago.....	567
The good old days.....	594
Theory and practice—Copeland.....	185
Thermopsis caroliniana.....	561
Thurber, Dr. George—obituary.....	462
Tiararia cordifolia.....	451
*Torenia Fournieri, The white.....	401
Toronto.....	124, 172
To the young men—May.....	491
Trees and shrubs, Central Park N. Y.....	482
Trees in bloom July 4.....	592
Trilliums.....	431
Trillium uniflora.....	604
Trollius, The.....	454, 614
*Trough for evaporating tobacco liquor.....	89
*Tulip bed, Central Park, New York.....	482
Tulip growing in Illinois.....	260
Twingleaf, The.....	421

U

Uncle Sam's big seed barn.....	496
Unseasonable season, The.....	258
*Urn filled with flowers.....	157
Uvularias, The.....	432

V

*Ventilating apparatus, A cheap.....	10
*Ventilator shaft.....	10
*Ventilator, Wind tight.....	115
Veranda screens.....	60
Veronica gentianoides.....	432
Viburnum opulis nanus.....	63
Viburnum opulis nanus.....	590
Vicks, Rochester.....	89
Victoria regia at Chicago.....	5, 6
Vines.....	394
Vincetoxicum acuminatum.....	541
Vines at Central Park New York.....	452
Viola cucullata alba.....	400
Violet crops.....	305, 496
Violet disease.....	138
Violets, Preserving fragrance of.....	394
Violets, S'ugs among.....	402, 441

W

Washing pots.....	594
Washington, D. C. 218, 233, 236, 562, 389.....	459
Water lily house at Kimball's, Rochester.....	89
Water lily ponds at Lincoln Park, Chicago.....	94
Water lilies from seed.....	520
Water lilies, W interink.....	237
Weather plant, The.....	514
Wedding decoration.....	326
*Wedding decoration.....	359
Welgela.....	540
What's its name.....	617
White flowers, Scarcity of.....	624
White House gardens, The.....	4
Wholesale prices of cut flowers.....	254
Wild ferns.....	283
Wild flowers from Alabama.....	615
Williams, B. S.—obituary.....	594
Wilson, W. C.—sale by assignee.....	82
Window plants.....	163
Wine bottle cover.....	61
*Wistaria, Specimen Chinese.....	566
*Wood basket of wild flowers.....	61
World's Columbian exposition, The.....	572
World's Fair commissioners.....	572

Y

Yucca filamentosa.....	592
Zanthorhiza apiifolia.....	326
Zinnia, The dwarf.....	89



THE AMERICAN FLORIST



America is "the Prow of the Vessel; there may be more comfort Amidships, but we are the first to touch Unknown Seas."

Vol. V.

CHICAGO AND NEW YORK, AUGUST 15, 1889.

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THE AMERICAN FLORIST

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54 La Salle Street, CHICAGO.

SOCIETY OF AMERICAN FLORISTS.

FIFTH ANNUAL MEETING

AT BUFFALO, N. Y.

August 30, 21, 23, 1889.

WM. J. STEWART, Secretary, 67 Bromfield St., Boston, Mass.; M. A. HUNT, Treasurer, Terre Haute, Ind.

The annual dues of \$1. may be forwarded to either the secretary or treasurer before the meeting who will return a receipt and badge by mail. To this way you can materially lighten their labors at the convention and avoid delay in securing your badge on the opening day.

CONTENTS.

New York notes and comments	1
New York notes	2
The Parisian basket (with illustration)	3
Cost of production	4
The White House gardens	4
Chrysanthemums—seasonable notes	4
Chrysanthemums—cultural notes	4
Chrysanthemum Ada Spaulding (with illus.)	5
The functions of leaves	5
Iron plant stand (with illustration)	7
Rex begonias at South Park (with illus.)	7
A device for decorators (with illustration)	8
Leaves of advice from a limb of the law VIII	9
Cattleyas (with illustration)	9
Ventilator shaft (with illustration)	10
Boston notes	10
Catalogue descriptions	12
The garden's story	12
Society dues	12
Coming exhibitions	12
Flower beds in Chicago parks	12
Catalogues received	12
The seed trade	14
News notes	14
Ants and mealy bugs	16
Overhead heating	18
Chicago	20
Cauna flaccida	22
Buffalo hotels	25
Map of Buffalo	25
Programme Buffalo convention	25
Leaves of advice from a limb of the law VII	26
Convention hall, Buffalo (illustration)	27
Cost of production	27

RAILROAD RATES—To secure the rate made by the passenger associations when going to the Buffalo convention this month you will pay full fare going and when purchasing your ticket ask for a certificate of such purchase from the agent selling you the ticket. This when countersigned by the secretary at the convention will be an order to the Buffalo agent to sell you a return ticket at one third fare. Ticket agents are supplied with blank forms for the certificates.

Don't neglect to secure one properly filled out when purchasing your ticket as otherwise you will not secure the reduced rate on the return trip. Orders for return tickets at the reduced rate will be good up to and including the 26th, three days after the final adjournment on the 23d.

FROM NEW YORK CITY TO BUFFALO.—The delegation from New York city and vicinity will leave from foot of West 42nd street at 4:25 p. m. and from foot of Jay street, North River at 4 p. m., August 19, for Buffalo, via the West Shore Railroad, over which special arrangements have been made to run a train to connect with the Boston party at Rotterdam Junction. This train will stop to take up delegates between New York and Buffalo at any station where they wish to get on providing notice is sent by letter or telegram to J. N. May, care ticket agent Weehawken Depot, New Jersey, before the train starts. Those wishing to secure sleeping berths at the reduced rate must send \$1.50 for each in advance to J. N. May, Summit, N. J., otherwise they will have to pay full rates for sleeping accommodation. Albany delegates leave Albany at 8:45 p. m. to join this train. Connecticut delegates will find it to their advantage to go direct to New York city and start with the crowd from there. All southern delegates who wish to go via New York will please report immediately as above and meet at the store of Peter Henderson & Co., 35 Cortlandt street, New York, not later than 3:45 p. m. August 19, where all who are going are requested to report at the above hour.

JOHN N. MAY.

RATES FROM PITTSBURG.—The Allegheny Valley railroad will sell excursion tickets from here to Buffalo and return good on any train going or returning until October 31, and good to stop off at Chautauqua returning, for \$10. They also sell a Niagara Falls excursion ticket for \$10 50, good on any train going, with privilege of stopping off one day at Buffalo going, but a month if holder wishes when returning. One of these might suit those who are going to the convention better than certificate plan.

ALEX. MURDOCK.

FROM BOSTON TO BUFFALO.—The delegation from Boston to the Buffalo meeting will leave at 3 p. m. Monday, August 19, via Hoosac Tunnel and West Shore railroad. New England members who wish to join should send their names at once to the secretary, W. J. Stewart, Boston, or to the vice president, L. H. Foster, Dorchester, and berths on sleeper will be reserved for them. Railroad fare for the round trip \$14 20.

FROM CHICAGO TO BUFFALO.—The Chicago delegation will leave via the Michigan Central R. R., at 3 p. m., Sunday, August 18. Those who wish to join

the party should notify G. L. Grant, 54 La Salle street, Chicago at once, and berths will be reserved for them.

New York Notes and Comments.

A week of constant rain has pretty well destroyed the outdoor flowers in many localities; if there should be a sudden rise in the market it is a question where any good stuff could come from. At this season the least increase in demand is at once noticeable, as, for example a recent large funeral, preceding which the mortuary chamber was beautifully and elaborately decorated for about a week. This caused a perceptible demand for good flowers at this season, though it would scarcely be noticeable in the winter. The fashion of beautifully decorating the death chamber instead of simply loading the casket with a profusion of meaningless designs, is certainly increasing in favor, as it deserves; it gives scope for fine work on the part of the florist, and is encouraging to the trade, after the melancholy "Please omit flowers," which follows so many obituary notices.

A recent trade event was Peter Henderson's gladiolus show, the largest and best he has ever held. It took place during the rainy week, and it was unavoidable that the wretched weather must affect it somewhat, yet the display was large and fine. The store on Cortlandt street was turned into an exhibition hall, the display monopolizing the usual counter space on either side and the center. At the foot of the center stairway was a fountain basin containing aquatics, including a well grown alligator, which smiled very expansively on the visitors. Owing to the rain the supply of lily blooms was limited, but a few caladiums and other plants made the fountain very pretty.

The best gladiolus were the lighter sorts, Shakespeare being particularly fine; there was a very good exhibit of the sulphur-colored sorts. The most interesting of these flowers was a new white, certainly the best so far exhibited. Of course it is not pure dead white—no gladiolus is—one can never expect to see the same absolute purity in this as in a eucharis, but it is really a good clear white, with a single pale violet line in the lower petal. The flowers have a very good substance, and the spike is fine. This flower has already received the Prospective prize of the Massachusetts Hort. Society; it will have to be exhibited three years in succession before it receives the final prize, and it has also received a certificate of merit.

The gladiolus formed the chief part of the exhibition, but cut blooms of Liliun auratum var. rubrum vittatum deserved special note; they were very large and richly colored, the red stripe being broad and deeply colored. They made the

other lilies seem very small. A few of the French cannas attracted notice, but the best place to see them is at the nurseries, where they look more gorgeous than Solomon in all his glory. They are par excellence, the plants for a conspicuous group or border, where the beauty of both flowers and foliage is fully displayed.

A large plant of *Crinum grandiflorum* in flower occupied a conspicuous place; palms and other decorative plants made a backing for the cut flowers. *Sabbatia chloroides* was an unfamiliar thing, with rosy lilac gentian-like flowers; several varieties of this plant were grown years ago, but the present generation carries little for this class of annual or herbaceous plants, unless they are very showy. Many of them are pretty, extremely so sometimes, but dealers settle their fate by the sententious words, "There's no money in them." Some of the dwarf Lima beans in pots made a curious exhibit; fauca a compact little plant like an ordinary wax or bush bean bearing real, bona fide Limas! A corner devoted to small conifers in pots gave quite a suggestion in decoration; there is no doubt that these plants have their place in such work. *Pinus excelsa*, the graceful Bhotan pine, Nordmann's silver fir, and the Rocky Mountain Blue spruce contrasted well in color, and the golden retinosporas were charming; they make such very gracefully shaped plants. The slender Irish yew, ordinary English yew, and the weeping hemlock made handsome pot plants. One would imagine that these little conifers would be desirable for standing in a hall.

A recent accession to the ranks of aquatic fanciers is Mr. Nash, the Clifton (N. J.) rose grower. He has added to his place a natural bayou connecting with Dundee Lake, where he will naturalize fine water lilies and lotus. Aquatics are increasing in favor, and certainly the best way to popularize them is for the florists to show what may be done with them. Any one fortunate enough to possess a bit of swampy ground may do a good deal in this direction.

Some fine tuberous-rooted begonias grown by Jas. Dean, of Bay Ridge, were recently noted. They were seedlings of the Roetzli strain, very large and as vivid in color as *Anemone fulgens*. The showiest class of begonias—admirable too for a shady border during the summer. The late J. Y. Murkland had a border planted with them, which attracted great admiration.

Jos. Towell, of Paterson, has gone to Europe to visit the great nurseries across the water. EMILY LOUISE TAPLIN.

New York Notes.

BY WM. FALCONER.

I'VE JUST BEEN to New York to see Peter Henderson's gladiolus show (July 31–August 2); and the "flowering" cannas were so pretty that I resolved to go right out to the nurseries and see them growing there, and so I went.

THE DWARF CANNAS occupied a wide and conspicuous belt of land and were planted out. Several beds beside Mr. H.'s house were also filled with them. They were in vigorous growth and in full bloom, and amply emphasized their claim to popular respect. They are everybody's flower just as much as is a gladiolus or dahlia. Every young growth bears a flower spike which rises well up above the foliage, and as the plants continue to throw up new shoots all summer long so they continue to bear blossoms.

I did not have time to note the several varieties Mr. H. cultivates, but as they seemed to comprise the cream of these cannas I will pass them now and refer in a separate article to these cannas in general.

ROSES, ROSES EVERYWHERE.—House after house is filled with them, some planted out on benches, some in pots and hosts in cutting beds. The plants in the cool houses are freely dusted over with tobacco powder, a no-you-don't to the greenfly. And slightly rotted leaves are spread thinly over the surface of the ground on the benches to check the drying influence of sunshine on the soil. The cutting beds are covered by lath-shadings raised a few inches above the beds and over this canvas is spread, and in bright weather kept continuously wetted by sprinkling with water.

THE NEVEST THING in roses is a "graft hybrid," if I may so term it. The stock was Marechal Niel and the scion Mermet. The "hybrid" differs from either, and Mr. Henderson thinks it resembles a Gloire de Dijon in habit more than anything else. It was not in bloom when I saw it, but the plants were very healthy.

LOTS OF WOOTTON are being grown and the plants are as clean and vigorous and healthy as can be, and the propagator's knife is unsparing among them.

AMERICAN BEAUTY is planted on the middle benches of one of his largest new houses, and they look fine. At one end all the plants are "worked," at the other end they are on their own roots. There isn't very much difference between them, but if anything the "worked" plants are the strongest.

A RED LA FRANCE is one of the new things among roses. It is hard to conceive that any change of color will improve the exquisite La France as it now is, but as we have a craving for different varieties and different colors, a red La France will be welcomed among us. Wish we could get a white one. Some years ago Mr. James Taplin called my attention to a red La France that he had secured, but I have not heard anything of it late.

A CLIMBING LA FRANCE is another form we shall gladly welcome. It was planted out on a bench, and in bloom. Its blossoms are just the same as we have in the ordinary bush form, but the plant is of unmistakable scandent habit.

COLEUS—the yellow-leaved *Verschaffeltii*. Not yet sure about a name or the name. In every particular except color it is the exact counterpart of *Verschaffeltii*, which it also resembles in freedom and habit of growth out of doors. The color is yellow tinged with greenish, and the veins reddish. Both are planted out side by side.

COLEUS BLACK DWARF is an exceedingly dwarf variety with almost black-crimson foliage. It was planted out in two places, in one it has grown very little, in the other and close by the first mentioned it has grown and matted vigorously and densely. If it does well what a grand and desirable associate it will be as a companion for almantheras in carpet gardening.

ONLY ONE COLEUS out of hundreds of seedlings raised here last year has been saved, and its fate is yet uncertain, as it has not been tested sufficiently. Its color is white with green fill.

THE PETUNIAS, double and single, were in good bloom and had just been repotted into their "flowering" pots. They were in a light greenhouse and meant for

seeding. Mr. Henderson saves his own double petunia seed, and reckons that it costs him at least \$300 an ounce.

FANCY-LEAVED CALADIUMS in pots fill up two or three of the larger houses. They are grown in summer and rested in winter. The little argyrites is a great favorite still. Mr. H. tells me that one of the finest collections of caladiums in the country is grown by Mr. Smith, gardener to Mr. Colgate at Yonkers, near New York. But caladiums are only one of the many things Mr. Smith has superior varieties of and grows in perfection.

SOMETHING NEW in plant stakes attracted my attention. They were wooden strips about 2 feet long, $\frac{1}{2}$ to $\frac{3}{4}$ inches thick and cut square, and clean and straight as an arrow. They are trimmings from some factory down in Maine and cost him a dollar a thousand. When received the bundles are stood on end in a tub of kerosene so as to thoroughly saturate the ends that are to be stuck into the ground and render them as indestructible as the top ends. Unless so steeped in some preserving material the ends stuck into the ground rot in a few months. They are the neatest stakes I have ever seen, and I believe as serviceable as the regular fancy wooden stakes one gets at the seed stores. He uses them for petunias and everything else of that size that needs stakes.

OF AMPELOPSIS VEITCHII (the south side ivy of Mr. Smith) he has handled 40,000 plants this season, and he assures me it is one of the most satisfactory plants he has ever grown or sold. Easily raised from seeds or cuttings. His stock is entirely pot grown. It can be propagated and grown out of doors in the open ground most as easy as in pots and indoors, but the trouble comes when we transplant them from the open ground. Most planters dislike to head back their newly transplanted ivies hence lose many. But in the case of pot plants heading back at transplanting time is quite unnecessary, and they may be transplanted with perfect safety summer or winter. And people are becoming alive to this fact.

MRS. ALPHEUS HARDY was, last year, the most precious of all chrysanthemums, but it promises to be plentiful enough this year. Mr. Henderson is getting up an immense stock of it. Its chaste beauty, distinctness and rarity riveted the admiration of every one who has seen it, and its praises have been sounded throughout the civilized world. But we are soon to have another surprise, namely:

A PINK COLORED "hairy" flowered chrysanthemum of the same style as Mrs. Alpheus Hardy. I have known of the existence of this pink-blooming variety for some time, but not till to-day did I know that it had escaped from its prison in Japan. But it has and Peter Henderson has got it. This is the second time he has had it; the first time every plant was dead when received. That horticultural veteran, Peter B. Mead, was telling me about it a couple of months ago. Mr. Mead's daughter was for several years a resident of Japan and officially connected with the royal families of the country. She used to treat her father here to descriptions and sketches of the hidden floral treasures of the princes' gardens, and laid particular stress upon this pink "hairy" flowered chrysanthemum. But she found it impossible to obtain a plant of it to send to her father at Mamaroneck. This shows how true is the proverbial attachment of the Japanese to their pet plants.



THE PARISIAN BASKET

THE STOCK PLANTS of chrysanthemums are grown in grocery boxes—the usual soap boxes, cracker boxes, and the like—and six plants to a box, and the boxes massed together in long belts out of doors. Each box is doubly labeled. This to a great extent does away with the inevitable mixing likely to occur, more or less, when the stock plants are grown in pots.

STORING EMPTY small flower pots.—

Instead of piling them away on benches and in bins they are laid orderly into moderately deep grocery boxes, and these boxes when full are stored one above the other in the sheds. New pots and dirty pots are treated in this way, but the sizes are restricted to 3 inch and under.

THE MEN were preparing soil in the yard. Instead of sifting it through wire sieves they were dashing it through gravel screens.

The Parisian Basket.

This style of basket is one of the best to advise for the stage or steam boat. The handle is very high which allows of a graceful arrangement of flowers; the basket illustrated being about three feet high. The large roses on the left are Mrs. John Laing; on the handle and extreme right are Brides, in the center and unfortunately in the shadow are "Jacqs."

As can readily be seen simply long

stemmed roses with their own foliage are used, no smilax, and only sufficient wire to fasten the roses on to the handle. This manner of putting such a profusion of roses on to the handle is very graceful and for the occasions mentioned it can be done very nicely, as it is the effect which is more desired than the lasting qualities at such times; but when baskets are sent to homes it is hardly advisable to treat roses in this manner, as it is to the florists' advantage to have his flowers last a reasonably long time. If you desire to put flowers on the handles of baskets (which often does add to their beauty), it is better to choose flowers that last better than roses.

H. H. BATTLES.

Cost of Production.

EDITOR AMERICAN FLORIST:—If your correspondents had carefully read the published extract from *Garden and Forest*, referring to the cost of production, they should have seen that it said only that *some* plants could be so produced. Nobody in their senses would say that geraniums, roses, etc., that require from four to five months to make plants could be produced at such prices, but that coleus, verbenas, heliotropes and seedlings of many things requiring but five or six weeks in the spring months to produce young, salable plants can be so grown, there is no question. Tens of thousands of roses grown in 3-inch pots are sold to the trade every season as low as \$4 per 100. In the market here and in other places, verbenas grown in 3-inch pots and staked up are sold at \$3 per 100, geraniums and fuchsias in 4-inch pots at \$6 and \$8 per 100, pots in nearly all cases when sold in the markets are included. A question to decide is whether six-weeks-old coleus and verbenas sold in May and June at \$10 per 1000, or roses six months old in 3-inch pots at \$4 per 100, geraniums and fuchsias in 4-inch pots at \$6 or \$8 per 100 (sold in the pots) are the most profitable. The florist having to sell at such prices in either case is not likely soon to become a millionaire, but from choice I would take the chance of occasionally "slaughtering" at auction at \$10 per 1000 (it is only rarely that we sell at such prices) rather than take the other. All such are grown in 2-inch pots.

PETER HENDERSON,

Jersey City, Aug. 3, 1889.

The White House Gardens.

In your issue of July 15 I see an article headed as above, which seems to me illiberal and not substantiated by the facts in the case.

I have always admired Head Gardener Pfister's taste in arranging plants and flowers, and while I doubt if he is responsible for the form of the large conservatory attached to the White House, it nevertheless seems to me to be well adapted to its purpose.

And it must be borne in mind that the plants in this conservatory suffer from the fact that for many months of the year they are constantly used for decorating the spacious apartments of the Presidential residence, which involves carrying them in and out several times a week, and at crush receptions they are not handled very carefully by the crowd. Only those who are frequently at the Executive Mansion can know how phoenix-like each morning fresh flowering plants line the corridors and ornament every table and mantel in the building. This constant moving of the plants must naturally militate against

any careful arrangement in the conservatory.

Your correspondent failed to mention the many rare plants maintained in excellent condition in spite of these disadvantages. In the rear of the greenhouses is a garden of old fashioned flowers which the present lady of the White House was not long in finding out when she arrived in the early spring. Here flourish Bleeding Hearts, Columbines, Larkspurs, Irises, Spiraeas, Sweet Williams, Peonies and other plants rich in association. The extensive grounds abound in flowering shrubs, ornamental trees and parterres of richly colored plants. To produce all this effect with only a limited appropriation of money from Congress requires much skill, energy and perseverance on the part of the person in charge.

Auburn, N. Y.

D. R. A.



Seasonable Notes.

From this time until the season of flowering is over eternal vigilance will be the price of good results.

Specimen plants will require strict attention in training so as to fill up any gaps ere the final touches are put on. Very strong shoots should be bent lower than weak ones, thus giving an even chance to all.

The excessively wet weather in the east has been very favorable for the development of the black rust, which is a Peronospora, or very closely allied to it. I have kept it in check by the use of sulphur vivum of black sulphur applied freely with the bellows. This fungus attacks the stems and the under sides of the leaves so that it is important to apply the remedy all over the plant.

If plants have their pots full of roots they should have some stimulants, not too strong. I use for a few days liquid cow manure, then sheep manure, and once or twice during the season I give sulphate of ammonia—half an ounce to three gallons of water; this must be used with caution or damage will be done.

Standards should now be carefully attended and carefully trained, as after this month the wood hardens and there is no further chance of filling gaps; leading shoots can be stopped once more if necessary to encourage a few side breaks to fill in with.

Plants for exhibition cut flowers will require daily attention, selecting such growths as are perfect, watching for insects as various caterpillars, grasshoppers and a peculiar beetle; this last fellow seems to stand on his head and eats out the very center of any shoot he fancies. I make it a point to let each plant carry an extra shoot or two in case of accidents, which so frequently happen.

It will soon be time to begin selecting flower buds, and as some prefer terminal buds of all varieties, and others crown buds, the selection is left for each to decide, but whichever is selected leave something to fall back on in case your first choice is crippled.

Those plants of late varieties for commercial cut flowers can yet be stopped

for the last time, except perhaps Grandiflorum, though last year I stopped this on the 24th of August and it was in full flower by the 1st of November; this was owing to the wood being well ripened at the time of the stopping.

It is not too late either to put in another batch of cuttings, either for stock or to grow in 4-inch pots.

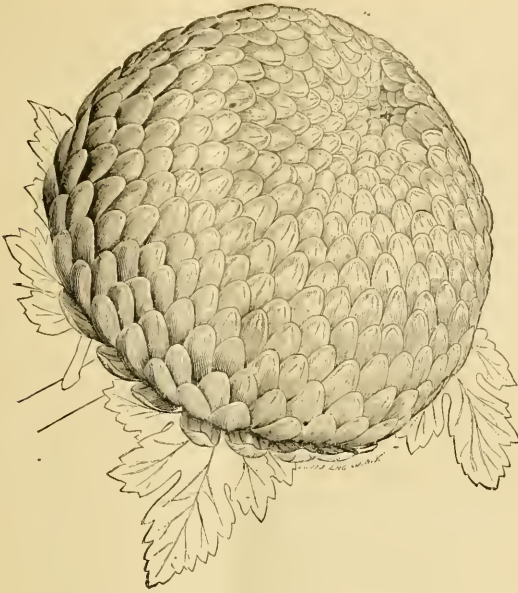
Pearl River, N. Y. JOHN THORPE.

Cultural Notes.

Plants intended to produce large blooms, whether for home decoration or exhibition, are now growing freely, and where many plants are cultivated will almost require daily attention in the matter of securing the growths to prevent accident to the extreme points which at this time are very soft and succulent. All plants having made their first break will grow away freely, and each shoot retained should be securely fastened to upright stakes, which are fastened to the cross rails. When all the shoots are supported in this way each one obtains its equal share of light and sun much better than when three branches are tied to one center stake. By the former method mildew is not nearly so likely to attack the leaves, and ripening of the wood progresses with the growth of the plant by the assistance of a free leaf development. The ripening of the branches of chrysanthemums at this time of the year is not nearly so much thought about as it should be. The growth, as it is made, should be hardened. It is the treatment at this stage of the growth of the plants which goes a long way toward success on the one hand, and failure on the other. With the plants growing quickly, gross-growing sorts need constant attention to see that the bast with which the points of the shoots are fastened is not too tight. Side growths which push from the stems in any way should be promptly removed, thereby concentrating the whole energy of the plant into the selected growths. Suckers which spring up from the base of the plant should be removed as fast as they grow, retaining any from scarce or new varieties for the purpose of supplying cuttings next December. If dibbled into sandy soil, even now, and placed in a slight bottom heat, they will quickly strike root and make sturdy little plants which will produce cuttings of strong growth at the proper time. Care should be taken in the removal of suckers. See that the roots of the plants are not damaged unnecessarily by cutting out the suckers with a knife, as is sometimes done. The safest way to remove them is to break them off above the soil.

Mildew, I notice, has made its appearance on the leaves of some varieties. Meg Merrilies and its sport, Ralph Brocklebank, are more subject to this pest than are the bulk of varieties. Upon those kinds it is generally to be found after a spell of hot or cold wet weather, owing, possibly, to some defect in their constitution. A dusting over the affected parts with brown sulphur is the best remedy, especially if it be applied early—as soon as the mildew is seen.

The recent hot weather has been very trying to chrysanthemum cultivators where water is not plentiful, as the plants have needed a supply in some localities twice daily. Under no conditions must the roots be allowed to become dry. As a rule, the soil in the pots should be examined twice daily, and there is no more certain way of ascertaining their condition than by ringing the pots with the



CHRYSANTHEMUM ADA SPAULDING

knuckles. Any plants which are dry, or approaching that state, should have sufficient water given them to thoroughly soak every part of the soil, and then let it wait until it is again in the same state. Where it is possible to obtain it, the water should be soft. Where water is continually applied to the plant in a hard, cold state, the foliage assumes a pale green color, which is not pleasant to look upon. Especially do they assume this sickly tint if the soil in which they are growing is very much impregnated with chalk, as it will be if the turf was taken from a chalk district. An excess of lime is injurious to chrysanthemums, although a sufficiency is an advantage.

Bush plants will have received their last stopping of the shoots, and the branches will need some sort of support to prevent their being broken by winds or other causes. As a temporary protection in this respect, place three or four stakes around the outside of the pot, and to them fasten some bast, encircling the branches so that they are made secure, to be thoroughly staked out at a later stage. The same care in supplying these plants with water, warding off insects and other details of culture apply equally to this class of plants as it does to those grown solely to produce a limited number of blooms; indeed, more care really is necessary to maintain the foliage in good condition than in the case of the other method, as much of the beauty of bush grown plants is lost if the foliage is defective through the ravages of insects or mildew. Specimen plants should have their shoots trained as growth proceeds, as it is much easier done now than later when the wood is ripening. In hot, dry weather the plants will derive much benefit from being vigorously

syringed twice daily. The foliage is kept free from dust and insects find it more difficult to obtain a foothold than when the foliage is not disturbed in any way. In showery or cold weather the plants should not be syringed at all, and only once, this in the afternoon, if the nights be favored with heavy dews, otherwise a good syringing early in the morning after a warm, dry night will prove advantageous. Especially will this be noticeable if the position in which the plants are growing is high and at all exposed to the north or easterly winds, which are always more of a parching description than when they come from opposite quarters. For syringing the plants we use the garden engine, going between the rows and returning in the opposite direction. In this way we are enabled to apply the water to the foliage with some force.—E. M., in *London Garden*.

CHRYSANTHEMUM ADA SPAULDING.—This is a new kind raised by Thos. H. Spaulding, Orange, N. J. It is as I saw it last year, the most beautiful and perfectly incurved variety extant. The flower is very large, the base of a bright rosy lilac crowning to pure white. The habit is strong and very sturdy, indeed it is a model of strength and vigor.

JOHN THORPE.

The Functions of Leaves.

[Extracts from a paper read before the Manchester Horticultural Improvement Society, by W. Birkenhead.]

The part played by leaves in the economy of nature is of such vast importance that we cannot learn too much about their functions, and I therefore hope that my words may be sufficiently lucid to

waken a deep interest in the subject selected for our present consideration, viz: "The functions of leaves under the influence of Sunlight."

I at once launch the proposition that the leaves of plants in the aggregate constitute the work-shop or factory in which the sun does that great work of forming, out of crude material, all the floral beauty which delights the eye; all luscious juices which give pleasure to the palate; all the perfumes which make the air delightful to breathe; and all the nutrition which goes to support life, and supply the energy by which we act. Indeed I may go so far as to say that if through the absence of sunlight the functions of leaves were effectually and permanently stopped, human existence would soon be a thing of the past. I use the term "leaves" in a broad sense, as covering all those parts of plants in which the functions of true leaves are carried on, by whatever artificial names they may for convenience sake, be sub-divided; so that the fronds of ferns, as well as the scale-like prothallium of the young fern before it has produced a frond; the marchantia or liverwort, and also the fleshy stems of the cacti and the prickly pear, come under the broad designation of leaves, because of their dependence upon sunlight for the performance of their work. It may be objected that some plants will grow in the dark, such for instance as the mushroom and other fungi, rhubarb, seakale, and potatoes, for I have myself had new potatoes produced from a few tubers which had been left in a dark cellar beyond the usual time for planting, but then they were very small, and we must bear in mind that they had their origin in the nutrition previously stored up in the old tubers, through the action of sunlight on the leaves of the parent plant. So also with rhubarb when forced; all that we get in that case is the development of the stored up juices prepared in the leaves of the plant by the action of the sun upon them during the previous summer. In seakale the same thing takes place, while the mushroom is generated and grows upon the lifeless remains of vegetation which had been equally dependent for its existence upon the sun's light of earlier days; so that in the fungi we get the result of sunlight or vegetation second hand as it were. Having observed that the sun's action on the juices of plants takes place in their leaves, we must consider briefly the structure of a leaf in order to understand the mode of action and its importance. In the typical leaf we get a skeleton or framework of a firm, woody character, filled in the interstices with a vast number of cells containing the juices of the plant, and protected on all sides by a skin-like covering called the cuticle or epidermis. Now this cuticle is composed of flattened cells in close contact with each other; usually one layer, but sometimes two or even three layers, especially in plants growing in warm climates; and in the oleander four may sometimes be distinguished. Its office seems to be to prevent the moisture evaporating from the cells composing the soft succulent tissues of the leaf; since if they were to dry up, their vital properties would be lost. Accordingly we find a great degree of variation in the thickness and closeness of this epidermis or skin, for those plants which can endure intensely bright and hot sunshine are generally protected by a much thicker and closer cuticle than those suited to shady places, or which grow immersed in water. The tissues protected by the cuticle are not entirely cut off by it, however, from

the external air; for it has certain apertures of a very peculiar character, which open or close under the influence of light. These apertures are called stomata (mouths). They are usually of an oval form, and bounded by two kidney-shaped cells containing green matter; and it is by the expansion or contraction of these that the orifice is diminished or increased. Sometimes, however, the opening is round and is bounded by a ring of four or five such cells; and in the very curious stomata of the *Marchantia polymorpha*, one of the commonest of the liverwort tribe, there are five such rings, one beneath the other, the aperture resembling a funnel, and the lowest ring being the one which regulates the amount of communication between the chamber into which it opens and the external air. Stomata are always placed over interspaces in the tissue, which are called intercellular passages; they are never found on the mid-rib or veins of a leaf, nor in fact over any hard woody portion of the structure. They are chiefly disposed over the soft green tissue of leaves and young shoots, but they are found also on parts of the flower. When the true leaves are absent and the stem performs their functions (as in the cactus or prickly pear tribe) stomata are found on its surface. They are generally most abundant on the under surface of leaves and are sometimes altogether absent from the upper. This is partly due to the fact that the tissue lying beneath the upper surface of leaves is so closely packed together, that there are scarcely any intercellular passages into which the stomata might open; whilst the tissue in contact with the lower cuticle is extremely loose in comparison and abounds with such passages; hence it is that the color of the upper surface of the leaf is usually so much deeper than of the lower. But in leaves in which the two sides are equally exposed to the air and light, such as those of the iris and of the flag growing by the sides of brooks, the general structure is nearly the same on the two sides, and the stomata are equal in number. Again, in plants whose leaves are exposed to the atmosphere on their upper sides only, as in the water lily, in which the leaves float on the surface of the water, the stomata are disposed on that side alone. As there are no dense cells to protect the tissues of plants growing altogether beneath the surface of the water, so there is no occasion for stomata to admit the passage of air to these; and accordingly in the whole tribe of sea weeds we find no vestige of them. They can not be distinctly traced in the mushroom tribe, nor in lichens, but in the liverworts they present themselves, while in most ferns as well as in flowering plants they abound. Of the very minute size of these curious organs some idea may be formed from the fact that in some leaves it is estimated that 70,000 occur in a square inch of the cuticle. Their function is evidently to allow the evaporation of water from the soft tissues of the plant, which is one of the most important processes by which the crude fluid, absorbed by the roots, is converted into the nutritious sap or proper juice. The influence of light upon the stomata causes them to open, while they contract, or even close in darkness. Now it must be remembered that plants can only take their food in a soluble condition, so that the carbon, sulphur, phosphorus, chlorine, iodine, bromine, silicon, potassium, sodium, calcium, magnesium, aluminium, iron and manganese (which are taken into the structure of different

plants) must all be made soluble before they can enter the exceedingly minute feeders belonging to the roots. Hence an immense quantity of water charged with these elements is taken up by the roots of plants and conveyed to their leaves, there to undergo those wonderful changes caused by the operation of the sun's light, which fit them to be built up into the structure of the plant, its flowers and its fruit. In the process of these changes a large quantity of surplus water has to be got rid of, and hence we may see the importance of the stomata, as mouths or doors opening into air passages in the leaf, through which this surplus fluid is exhaled. It may be well here to observe that the rapidity of absorption is in part governed by the rapidity of exhalation. The latter is nearly checked by the absence of light, and so plants are found to absorb but little in the night, or in a dark room. Now the



IRON PLANT STAND.

fluid which is so abundantly taken up by the roots of plants and which is conveyed upward along the interior of the stem is very unfit for the nourishment of the structure and for the supply of the growing parts, until it has been exposed to the influence of the light and air, by which great changes are effected in its properties, and power is given to it for the maintaining of life. This can not be effected either by the underground roots or by the hard woody stems and branches, but is accomplished in the leaves, where there is an enormous breadth of soft tissue exposed to the light as well as to the air. The action of sunlight on the surface of the leaf causes the myriads of stomata or mouths in the cuticle of the leaf to open, so that the air can enter the internal chambers where it gives vitality to the sap, just as it gives vitality to the blood of an animal when received into the lungs. At the same time the opening of the stomata affords an opportunity for the escape of an immense quantity of watery vapor and gases which are exhaled or driven out of the leaf by the forces acting upon them in the leaf. There the sun's light causes marvelous chemical changes in the crude elements carried by the sap from the roots, to be elaborated or digested; and it becomes at once apparent that if these forces are stopped for any lengthened period while they should be active the results must be disastrous. Hence if we find that in the absence of sunlight these activities cease and the crude sap remains unfitted to nourish the plant, through not being digested, we may look for a weak and sickly patient in the plant so deprived of light. And so also may we look for weakness in the tree which is deprived of its leaves by over-much pruning; or in the fern which has been denuded of its foliage till it has become a stunted wreck

of its former self. Now, a few simple experiments will show that there is a strong probability that this rapid transpiration takes place through the stomata. If a piece of glass be held near the upper surface of the leaf of a vine actively growing in a hothouse little effect will be produced upon it, but if it be held near the under surface the glass will soon be dimmed by the vapor, and in a short time longer this will accumulate so as to form drops. As the upper surface of a vine leaf is nearly destitute of stomata, while the lower is thickly covered with them, the disproportion in these effects is at once explained if the transpiration really takes place through these apertures. Similar experiments on other plants lead to the same general result. Where the stomata are equal in number on the two surfaces both seem to transpire alike, and when neither possess stomata capable of action the transpiration is scarcely to be observed. Again, if a plant, actively transpiring under the influence of sunlight, be carried into a dark room its transpiration is immediately and almost entirely checked; and if its stomata be then examined they will be found to have closed. Thus it appears almost unquestionable that the rapid loss of fluid from the whole vegetable surface, but especially from the leaves which constitute a most important part of the economy of the living plant, is regulated by the number of stomata which each part contains, and by the degree in which light acts upon them. The exhalation of fluid from the living plant then may be regarded in part as a kind of evaporation from its interior, and will be promoted by the warmth and dryness of the air around, but it is entirely controlled by the stomata, which by admitting or excluding the air, permit or check it in accordance with the influence of light upon them. Thus, then, we see one important mode in which light influences the growing plant. No amount of heat can supply a deficiency of this agent, for if it be excluded, exhalation is entirely prevented, and all the fluid that is transpired has to pass off by the slow process of evaporation from the external surface only, which is not nearly sufficient for the concentration of the sap. Moreover, when the exhalation is checked absorption soon ceases; for the tissues become gorged with fluid and are capable of containing no more. If a plant accustomed to grow in open day be kept for some time in the dark it becomes unhealthy, and as it were dropsical, and will generally die if not restored to its usual condition. It has been ascertained that the young leaves and shoots of the wild corn exhalate twice their own weight of water daily. A common sized cabbage in the twelve hours of daylight was ascertained by Hales (one of the best experimenters upon this interesting subject) to exhale from 15 to 25 ounces daily, according to the light and warmth to which it was exposed. The concentration of the crude sap by the loss of its superfluous fluid and the occasional absorption of what may be necessary to supply the amount insufficiently afforded by the roots, are by no means the only functions of leaves. The most important function that plants perform results from their taking up carbonic acid from the air and soil. When plants are exposed to the action of sunlight a series of chemical changes are brought into play, which are essential to the life of the plant. The carbonic acid of the air will be decomposed by the green parts of the surface of the plants, and the solid carbon



REX BEGONIAS AT SOUTH PARK, CHICAGO

will be fixed within its tissues, while the oxygen will be set free so as to restore the purity of the air. It is in the performance of this function that the leaves, from the extent of green surface they present, are peculiarly energetic. The proportion of carbonic acid in which the healthy plant will thrive under the influence of strong sunlight is not less than 7 or 8 per cent; but a much smaller proportion than this will soon be fatal to it if grown in the shade. It is to a peculiar compound formed in the cells of the green surfaces, of which the carbon introduced from the air is an essential ingredient, that the color is due; and as this fixation can only take place under the influence of sunlight (artificial light, even the most powerful, having no influence upon it), plants which grow in dark situations are either in part or entirely destitute of color. The influence of light upon the green color of the leaves is remarkably shown when the buds are unfolding. The stronger the sunshine the sooner will they assume their characteristic hue, and on the other hand, in dark, dull weather they will remain for days together, almost of the same color as before they expanded. Permit me now to express a hope that the study of this subject may be a help to us in our horticultural practice, whether it be in the arrangement of plants, the pruning of trees or the treatment of bulbs after their flowers are gone.

Rex Begonias.

Our illustration shows a nook in the conservatory at South Park, Chicago, where Superintendent Kanst has massed a lot of his immense specimen Rex begonias. Many of these plants are three feet through and indicate what may be done with the Rex begonia by skillful handling.

Those in the foreground stand on brick piers, the bottom of the pot being within about half an inch of the surface of the water. They thrive splendidly in this position. The moisture is supplied to the plant by absorption in just the quantities required and to the under surface of the leaves which is necessary to the best development of the plant.

They can be grown nearly as well in the dwelling by placing the pot on a brick in a pan of water, keeping the water about half an inch below the upper surface of the brick, which being porous draws the water up to the plant as required. Florists should advise buyers of Rex begonias to try this method.

Iron Plant Stand.

Mr. Wm. K. Harris, Philadelphia, is a man of ideas; one of them is shown in the accompanying sketch. The stand seen at the right is made of iron pipe (1½ to 1½ inch) with iron flanges screwed on each end. He has them in several sizes, from 15 to 20 inches in height and from 6-inch flange at top and 7-inch flange at

bottom to 7-inch flange at top and 9-inch flange at bottom.

They are of considerable value in economizing room in houses occupied by palms, ferns and other plants which like partial shade. The method of using is shown in the sketch at the left, and it can be readily seen how much space is saved. Of course these should be used only among plants which like partial shade. All parts of the stand should be of galvanized iron, as otherwise rust may do some injury. At first glance it will be thought that the stands must surely tip over when the plants are being watered, but Mr. Harris finds no trouble from this source. The stands cost to make from 50c. to 75c. each, but will undoubtedly last a life time.

A feature which while probably of no great practical value is still worthy of consideration, is that in a house in which these stands are used the plants show off to much better advantage than when all are placed on a common level.

MANATEE, FLA.—E. N. Reasoner, accompanied by R. D. Hoyt, of Bay View, Fla., returned July 23 from a three week's yachting cruise among the South Florida keys, from Key West to Biscayne Bay. They managed to get in some work on botanizing, and succeeded in establishing the identity of a new palm to the U. S. It is *Thrinax excelsa*, and had been confounded with *Thrinax argentea*, the "silver thatch." It is a magnificent palm adapted for greenhouse use.

A Device for Decorators

For the last three months we have in decorating used a device of our own get up which has been of such assistance that we thought it might be of value to others.

It is a simple contrivance for decorating bay windows, corners of parlors, etc., for weddings and receptions.

About eight times out of ten the bay window is selected to be handsomely decorated "with all, or mostly all, plants, ferns especially, and have a couple of tall palms to reach out over head, make a regular fern grotto of the window, but don't have the plants built out too far, so we can get at the window, etc." After receiving such an order the florist goes away wondering how he is going to accomplish it all. In the first place he has no palms over three or four feet high and if he can not bring the pots out a distance on the floor how can he build them up high and feel sure they will not tumble?

I will try and explain one way. Measure the height of the wall. If it is eleven feet have your wire-worker make two strong V shaped troughs (as shown in upper sketch) seven or eight inches deep and the same in width, with strong round iron running the entire length which should be about nine and one-half feet. Line these with strong manilla paper and fill loosely with sphagnum moss. Select one end for the top and removing a sea-forthia or kentia palm, three or four feet high, from its pot place it in the upper end of the trough, pack it well with moss and wire it in position. Have the plant lean over enough to be graceful. Then place another a foot or so shorter, below it and so on until you get half way down where room is valuable then use shorter latania palms. Fill the one for the opposite side in much the same way.

For the inside window have two or more of the same arrangements. They can all be arranged at home and set up in ten minutes in the room to be decorated. They are held in position by fastening the top end to the picture moulding. After they are in place you may see fit to readjust the palms by tying the stems in position, then with a lot of common ferns which have been stemmed you can fill in any places where the moss shows or more foliage is needed. Finish by placing a few good plants of alsophilas, cyperus or similar plants at the base. Of course the arrangement should be natural and as free from stiffness as possible. The wire troughs are of course available for use any number of times. The accompanying sketch may serve to give an idea as to their application.

Milwaukee.

C. B. WHITNALL

Leaves of Advice From a Limb of the Law.

(For Young Florists.)

VIII.

Must have been out rather late last night, for I observe that you turn that sprinkler on your own head every now and then. I would have a hot head, would I, if a man had ordered 1000 hyacinths of me, and after I had bought them for him at a very reasonable figure and was just calculating my prospective profits he should send me word that he had changed his mind and didn't want them.

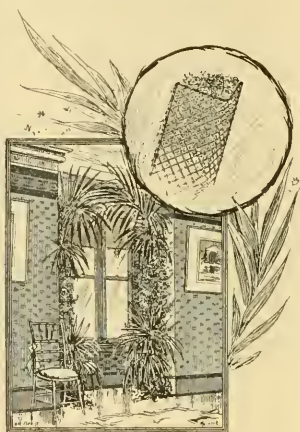
Why, no, to the contrary, my head would be very cool at such a juncture; that is provided he was a responsible man.

Yes, I do mean to say that in such a case the law doesn't permit a man to change his mind. When he gave you that order and you accepted it your

minds met, as we say, and the resulting contract became absolute.

Of course had he returned and given you due notice not to fill the order before you had time to do anything more than note the order on your books, then you would proceed at your peril. For in that case you could prove no damages. Or at most a mere trifle, and the law takes no notice of trifles. But in this case he did not countermand the order until you had purchased the goods and they had been shipped to you.

Now two courses are open for you. Either you may ship the plants to him, taking good care that they are offered to him in perfect condition and according to sample or quality ordered and give



A DEVICE FOR DECORATORS

yourself no further anxiety as to what becomes of them—whether he accepts them or allows them to lie on the sidewalk and rot. Or, you may sell the plants for his account, first giving him notice and sue him for any deficit that may arise.

Yes, he may come into court and say that his order was only a conditional one. In that case if he could prove it you would be obliged to take the hyacinths and get rid of them to the best advantage possible.

The very essence of a contract is that it should be a full and perfect agreement between two or more people. Hence if there are no witnesses and nothing in writing it becomes a question of veracity between the parties. Therefore always see to it that you either get a contract in writing or else have witnesses to the conversation.

Now, there is another element in such a contract as this one, and that is—time. This customer may take the position that he gave the order, but that it was specifically agreed that you were to deliver the hyacinths within thirty days and that you failed to do so.

Contracts vary in many ways. A customer may come to you and say: "I will give you so much a dozen for 12 dozen tuberose bulbs." You decline. He says: "Think it over," and goes away. Now the law will not permit you to take a whole year or even a whole month to "think it over." You must make up your mind within a reasonable

time—say a week or ten days and must then give him notice of your acceptance.

No, he can not then say that he has changed his mind, for although he had a right to change his mind in such a one-sided transaction, so to speak, yet he is required to give you due notice of having changed his mind or he will be held to his offer.

I am coming to that. It often happens as you say, that a customer orders by letter. Here you are required to accept or decline promptly or else there would be no contract; but in no case proceed to execute the commission until you have accepted the offer, for you must not forget that one man can't make a contract. In the language of the old proverb: "It takes two to make a bargain."

When you have once reduced a contract to writing don't ask the other party to make any alteration by word of mouth. Have all alterations likewise in writing, and if the original document has a witness to the signatures take care that the second contract has the same.

Remember too, that when a contract is carried into court the law admits no evidence to contradict its terms or vary them in any way except it is a later contract.

This however does not apply to the explanation of a contract. For instance, a statement of goods sold may read: 12 d. plain flowers and 12 d. glazed do. Evidence would be admissible to prove that this meant: "Twelve dozen plain flower pots and twelve dozen glazed flower pots."

As a general rule too, a court will inquire into the consideration of a contract, and while a paper may state that the consideration was five hundred dollars, you would be permitted to show that in reality only one hundred cash and four hundred in merchandise was the consideration.

So too, a receipt may always be inquired into.

It does not follow that because you hold John Doe's receipt in full of all demands to date that you owe him no money. That receipt may have been left at your place of business by a stupid boy who was told to get the money or tear the name off.

In many ways contracts are rendered null and void. For instance, the law permits no minor to bind himself by contract. You have been letting young Jones have flowers for his sweetheart have you? Well, take care, while it may be true that old Jones is as rich as pitch, yet he might refuse to pay these bills.

No, that does not help the matter. It is not worth the paper it is written on. The law requires that a minor—to make his contracts good—should bind himself to pay them after he has become of age. To do this before doesn't help matters one bit.

Or again, contracts are rendered of no binding effect when a man is forced or defrauded into making the contract; or when the contract is against good morals. So too, the contracts of a lunatic are of no force, or of an ignorant person if it could be shown that he hadn't intelligence enough to grasp the matter.

Generally speaking, the husband is liable for goods and merchandise furnished his wife for her support and comfort. I don't think the law would regard the particular merchandise in which you deal as such a "necessary" which the husband would be obliged to pay for. So be discreet.

But having paid one bill for flowers, you would be justified in assuming that he consented to such purchases by his wife. However, in all these things, you



GROUP OF CATTLEYS.

must exercise good judgment. A man's success in business depends largely upon his lack or abundance of that commodity called "common sense."

Don't say to any customer: "We want your trade whether you pay or not." Above all, don't try to make business by delivering more than called for by the contract, or by delivering merchandise not up to the requirements of the contract. These are two bad business principles. Some men might not mind a variation of a few dollars; others might withdraw their custom at once. Deal fairly, it will pay in the long run.

Your head is cooler is it? Glad to hear it. Too much blood in one's head means too little in one's heart, and bear in mind that a man needs something besides brains in this world.

UNCLE BLACKSTONE.

Cattleyas.

These will always be the popular orchid flowers for cutting purposes, owing to their large size, bright colors and lasting qualities. Fortunately those suitable for this purpose are among the easiest grown, can be procured in almost any quantity and at very reasonable rates. All the species excepting *citrina* are natives of Central and South America, and are found growing under various conditions

of climate, from the hot swampy lowlands of Brazil where *superba* and *Eldorado* are found, the breezy seacoasts of Venezuela, the home of *Mossiea*, to the cooler mountainous home of *Trianae* in Columbia.

No arbitrary rules therefore can be given for the culture of the genus, or even of a species, for often these may be seen flourishing under totally different conditions. In growing these plants one must always bear in mind that they usually grow on trees, therefore the roots should not be over loaded with soil; that they are screened from the fierce rays of the sun, but sufficient reaches them to thoroughly ripen the bulb, otherwise they do not flower satisfactorily. The temperature is usually very high in the day time, but the nights are cool with consequent great evaporation and tremendous rains fall during the growing season. To imitate these conditions as near as possible is the aim of the cultivator, remembering that abundance of heat and water is necessary to make good bulbs, and light and air is necessary to flower them.

The following kinds are among the most useful and a small quantity of each will insure cattleyas every month in the year: *Mendelli* and *Mossiea* should be in bloom in June, to be followed by *Gigas* with its many varieties, *Sanderiana*, *Imperialis*, etc., and *Gaskelliana*, both

good species for summer work; in late summer *speciosissima* and *maxima* will be in bloom, followed by *Bowringiana* (and especially good species of the *Skinnerii* type) and *Percivaliana*; *Laurenceana* is rather too expensive just yet. The early varieties of *Trianae* will now be in and this species should keep up the supply till *Skinnerii* and the early *Warneris* are due.

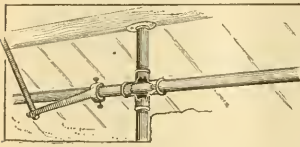
F. GOLDRING.

Kenwood, N. Y.

TORONTO, ONT.—The annual flower show held under the auspices of the Toronto Electoral District Society was a grand success. The interest in the display appears to be growing each year. The premium list was very lengthy and covered nearly everything that is in condition to exhibit at this season. Of the first premiums awarded for plants Geo. Reeves received 7, Sir David Macpherson 8, Cotterill Bros. 4, John Chambers, park superintendent, 8, H. A. Massey 3, Horticultural Gardens 4, Robert Murray 8, Jos. Graham 1, D. Falconer 1, Col. Gzowski 1, and Thos. Carter 1. Of the first premiums awarded for cut flowers Jos. Graham received 4, T. Clinkenboomer 9, H. A. Massey 2, Granger Bros. 1, S. Tidy & Son 2, Mantou Bros. 3, Sir David Macpherson 1, A. Terryberry 3, Alex. Reid 3, Noah Suley, Guelph 2, Geo. Anderson 1 and A. Gilchrist 1.

Ventilator Shaft.

The arrangement of the ventilator shafts at the greenhouses of Mr. C. S. Price, Lansdowne, Pa., is unique but certainly excellent. One objectionable feature of ventilating machinery is the weight and strain on the roof from the



VENTILATOR SHAFT.

shafting and machinery; this Mr. Price has very successfully overcome. As will be seen in the accompanying sketch each of the iron pipe columns which support the ridge is provided with a four way tee, at a distance of about a foot from the ridge. This tee is $1\frac{1}{4}$ inch one way to connect with the $1\frac{1}{4}$ inch column, and 1 inch the other way, the shafting being of 1 inch pipe—the threads are reamed out the 1-inch way, thus giving the 1-inch shafting room to revolve easily.

This makes a neat light job, much preferable to the usual way, and brings the strain on the iron standards instead of the rafters. The machinery as arranged by Mr. Price works with the greatest ease.

Boston Notes.

Thos. Waterworth, of Braintree, reports a loss of 1,600 lights of glass by hail on July 17. No insurance.

N. F. McCarthy is receiving congratulations. But it is a girl.

At a recent exhibition of the Mass. Hort. Society Pitcher & Manilla showed a new achillea, which has been named "The Pearl." It is more upright in growth and the flowers are whiter than the old variety.

John Reardon, an old and well known gardener, died August 1. He has had charge of the State House grounds, the Granary Burying Ground and other city cemeteries for many years.

The Garden Committee of the Mass. Hort. Society and friends have been enjoying visits to several prominent establishments recently. On Wednesday July 31, they were hospitably entertained by Mr. B. G. Smith, an amateur at Cambridge, and on August 7 they visited Newton Cemetery and the extensive nursery of W. C. Strong, at Newton. Mr. Strong showed a number of thrifty looking spruces in support of his theory that August is the best time to transplant evergreens, but the majority of the committee declined to be convinced.

The annual excursion of the Gardeners' and Florists' Club took place on Tuesday July 30, at Downer Landing, a favorite picnic resort in Boston Harbor. It was one of the most enjoyable occasions they have ever attended and was a great success in every detail.

A game of base ball between nines representing the florists and the gardeners was won by the latter. Much amusement was caused by a "potato race," participated in by nine nimble runners, and some of the high jumping shown would have done credit to profes-

sionals. Lively music was furnished by a lusty member with the bagpipes. The dance hall was a magnet for the younger members, while the more sedate found amusement and muscular exercise in the bowling alley. The party was photographed before leaving the grounds. Two former Bostonians, W. A. Manda and J. A. Penman, came all the way from New York to participate in the day's sport. M. F. Gallagher, of Chicago, who was in town a few days previous was also expected to be present, but was unfortunately called away by a telegram announcing the illness of a friend in New York. W. J. S.

BUFFALO, N. Y.—C. F. Christensen is preparing to add a new house 100x20. Wm Scott has built another carnation house 170x19. W. J. Palmer has completed two houses, one 235 x 21 for roses and another 150 x 25 for carnations.

SITUATIONS, WANTS, FOR SALE.

Advertisements under this head will be inserted at the rate of 10 cents a line (seven words) each insertion. Cash must accompany order. Plant ads. not admitted under this head.

SITUATION WANTED—By a single man, as head S gardener or foreman in private place; first class planter. Address X Y, care American Florist.

SITUATION WANTED—As foreman or propagator to the beginning of October; age 27; wages expected, \$30. Address Box 10, care American Florist.

SITUATION WANTED—Seed trade, 12 years' experience in leading European and American houses; age 27; first class references. Address D. CAWICHA, 311 W 2nd St. Ext. Baltimore, Md.

SITUATION WANTED—Have had six years' experience in greenhouse, lawn and garden, under market plants, cut flowers and flower beds. Good reference. Address H M, Am. Florist.

SITUATION WANTED—Private or commercial, S English, single, 30 years' experience in all branches; first class reference. Address J. W. S. care Craig & Bro., 49th & Market, Philadelphia, Pa.

SITUATION WANTED—As foreman, commercial, S German, single, 17 years' experience; 11 years in this country; first class references. Florist, cure Robt. Craig, 49th and Market, Philadelphia, Pa.

SITUATION WANTED—On private or commercial place, by experienced grower of all sorts and greenhouse plants, roses, orchids, ferns, etc.; also fruit of all descriptions under glass; 10 years with practical experience. References given. Address H. STOCKING, 11 Temple St., Newburyport, Mass.

SITUATION WANTED—By a single young man, S as florist, understands rose growing, both in doors and out, also grafting; also has experience of private gardening and nursery work; over 10 years' experience in gardening in all branches; best reference. Address H B S, 25 Silver St., Kensington, Philadelphia, Pa.

WANTED—At once, a competent rose propagator to take charge of our house. Married man preferred, must be sober. Address ROOP & ZIE, Westminster, Md.

WANTED—By thoroughly practical florist, position as superintendent private or commercial place; good salary required; first rate references. Address with particulars ALPHA, care American Florist.

WANTED—Single man, as gardener and coachman, who understands care of small greenhouse and is willing to make himself generally useful. Address C. L. CROSS, Riverside, Ill.

WANTED—Single man to run my greenhouses on shares, or will lease same. Two 75 ft. houses nearly new—head house with sleeping room. Steam heat. Best of references given and required. Address A. E. HOTT, Atkinson Depot, N. H.

WANTED—Sept. 1st, a competent man to take charge of greenhouses. One who understands the propagation and forcing of roses especially desired. Must also have some taste for cut flower work. The application of only first class men with ability and experience in commercial places and best of references will be entertained. Address Lock Box 1018, HENRY A. DREER, Philadelphia.

WANTED—Experienced commercial florist as assistant foreman at Dreyer's Nursery, Riverton. The application of only first class men with ability and experience in commercial places and best of references will be entertained. Address Lock Box 1018, HENRY A. DREER, Philadelphia.

WANTED—A first class gardener and florist to run a garden and greenhouse; must have \$300 or \$400 in cash. A good chance for a first class man. Must be able to make a good thing, a 2 story house, good barn, wind pump, tanks, hydrant, greenhouse, etc., and manure for one year on the ground. None but a man who can meet the requirements and come well recommended need apply. Address S. K. HAGINS, Portland, Ind.

WANTED—On a commercial place, a gardener—single German preferred—thoroughly experienced and successful in growing roses, cut flowers in variety, and bedding plants. To the right man a permanent situation. Address with references J. NEWMAN & SONS, 51 Tremont St., Boston, Mass.

FOR SALE—Greenhouse property; the location: A good stock of plants. Only greenhouse in city of 10,000 inhabitants. MARY A. WAKE, Newton, Kan.

FOR SALE AND LEASE—My greenhouse and nursery business. Rare chance for good rose grower with some means. Full. PREIFER, Sedalia, Mo.

FOR SALE—Splendid opening for enterprising florist. 1/4, 1/2 greenhouses, 1/2 acres, long lease, small rent, best location; only \$800 or \$500 required. Address A. A. MILLER, Washington, D. C.

FOR SALE—In a booming city, a business controlling the trade of 5,000 inhabitants. No discount on it in any way. 11 health only reason for selling. Price \$1250. Address MRS. A. J. BAIN, 317 West 9th St., Pueblo, Colorado.

FOR SALE OR RENT—Greenhouse property, only one in the growing city of Ashbury Park; established 10 years; good location, aristocratic water and doing a good business. Address J. H. B. P. O. box 25, Ashbury Park, N. J.

FOR SALE—No. 6 Hydraulic Ram, cost \$40. Price \$20. Sold because town water passes my place, and not needed. A fine thing to let water from a stream. In perfect order. Address ALEXANDER MEAD, Greenwich, Conn.

FOR SALE—Good established florist business with 5 greenhouses, a 5-room dwelling, 1/2 acre of land, and large choice collection of plants, cut flowers from postoffice, in County Seat of 8,000 inhabitants. Address S H B, care American Florist.

FOR SALE—Our entire hot water heating apparatus, consisting of 6 radiators, 1 boiler, 1/2 inch pipe and fittings. Offer solicited, or price sent on application to J. NEWMAN & SONS, Boston, Mass.

FOR SALE—A rare chance for gardeners and florists. A well established and remunerative business, consisting of a large lot of land, with a good dwelling, barn, 2 greenhouses with hot water furnace, a good well and hydrant water supply, 5 acres well cultivated, capable of growing within a mile from above mentioned premises, a large lot of choice plants, bulbs, trees, etc., 1 horse, wagons, cutter, sleigh, and various other useful implements for sale at a bargain. Apply early to MRS. MAGDALENE DINGER, Eau Claire, Wis.

TO LEASE—For 5 years. Florist business, established 15 years; 5 greenhouses, heated by hot water; water supply from windmill. Situated 14 miles north of Toronto, Canada. First class stock. Address COLIN SKINNER, 275 Yonge St., Toronto, Canada, or during Convention, Mr. KILLEN, care J. C. Vaughan.

FOR SALE.

Snowflake Daisies for fall and winter cut flowers. Also large bulbs of the fragrant, double and single Narcissus. Will exchange for lily bulbs, or florists' requisites. Address A. W. MORGAN, 103 W. Kimber St., Danville, Ill.

FOR SALE.

Greenhouses with ground and complete stock, consisting of roses, chrysanthemums, carnations and general bedding plants, etc. Houses heated with hot water and built from most modern plans; situated in 130 acre tract, 500 paces from Philadelphia and Camden, near railroad station. Excellent opportunity, best reasons for selling. Cheap, \$1,500 on easy terms. Address with particulars FLORIST, Box 15, Haddonfield, N. J.

FOR SALE.

TWO SPECIMEN WHITE AZALEAS, standing 6 ft. high, 7 ft. through, 2 ft. in circumference, and very shapely in form. In perfect health and condition; is fully set with bud for a magnificent bloom. Sold separately if desired. Address GEO. F. CUTLER, Taunton, Mass.

FOR SALE.

One Hot Water Boiler capable of heating 100 feet 1-inch pipe, in first class order, nearly new.

Also a fine stock of plants, such as Begonias in the var., 3-inch pots, Coleus in var., 2-inch pots, Geraniums in the var., 2, 3 and 4-inch pots. Double Saxifrage, 2-inch pots, Pelargoniums in var., 3-inch pots, Callas, and 6-in. pots. Bulbs of all kinds. Apply for prices before buying elsewhere.

The BOILER will be sold at a bargain.

JOS. SHAW, Austin, Ill.

WANTED TO PURCHASE.

Greenhouses with an established trade not less than 500 feet of glass with stock must be in good location, near by either New York, Boston, Philadelphia or Chicago. Address with particulars, price, etc. H. E. care American Florist, Chicago, Ill.

ROSES AND SMILAX.

La France and Contiers, 3-in. pots, 4 cts. Niphets and Mermets, 3-in. pots, 5 cts. Heavy Smilax, 2 1/2-inch pots, 2 cts.

JORDAN FLORAL CO.,
706 Olive Street, ST. LOUIS, MO.

WOOTTONS.

WE HAVE STILL A FEW LEFT AFTER PLANTING 20,000 FOR NEXT WINTER'S CUT.

These 20,000 plants required 1,800 running feet of Greenhouses 16 feet wide, which we have erected at a cost of \$35,000, to be devoted exclusively to "WOOTTONS."

Why we plant this Enormous Number, and Why you should do likewise.

Because it is the best red rose in the world.
Because it blooms continuously for the whole year.
Because it is as large as an American Beauty, and
Because it is of a much richer color.
Because it blooms best in winter.
Because with us it never has shown disease.
Because reports from hundreds of growers are favorable.
Because next winter it will pay four times the profit of any other rose.
Because the greatest profit will be this coming season.

Because its fragrance equals "Jack."
Because it is no snare and delusion like hundreds of others that you and I have tried.
Because it has been thoroughly tested.
Because we offer it at reasonable figures.
Because red roses will take the lead this winter.
Because it is a home production.
Because it has taken first prizes whenever exhibited.
Because ALL THE FLOWERS ARE PERFECT, WITH LONG STEMS AND ELEGANT FOLIAGE.

REMEMBER THE \$300 PRIZE WHICH WE OFFER.

Plants in perfect order, from 3-inch pots, at \$180 per thousand; \$100 per five hundred; \$25 per hundred; less quantity, 50 cents each, fifty plants at hundred rate, during August and September.

C. STRAUSS & CO., ROSE GROWERS, WASHINGTON, D. C.

JOHN H. TAYLOR,
ROSE GROWER,
BAYSIDE, L. I., N. Y.

Offers to the Trade the Great TEA ROSE

MME. CUSIN.

The leading Rose in New York market this season. Sixty thousand buds cut from 200 running feet of glass, from July 1st, 1888 up to Feb. 1st, 1889.

— ALSO —

MME. DE WATTEVILLE, CATHERINE MERMET,
PAPA GONTIER, BRIDES, and
PERLE DES JARDINS, NIPHETOS.

Write for particulars.

ROSES.

PERLES, PAPA GONTIER, MERMETS, NIPHETOS, LA FRANCE, MME. CUSIN, MME. WATTEVILLE. Strong plants, from 4-in. pots, \$8.00 per 100.

MARIE LOUISE VIOLETS, pot grown, fine healthy plants, 4-in. pots, \$8.00 per 100.

John White,

Waverly Place, ELIZABETH, N. Y.

ROSES.

35,000 of the leading Forcing and Bedding varieties: TEAS, HYBRID TEAS, and HYBRID PERPETUALS. Teas, \$5.00 per 100; Hybrids, \$45.00 per 100. My selection of varieties. Also the leading Prize winning varieties of CHRYSANTHEMUMS, CARNATIONS, and general greenhouse stock. Trade List mailed on application.

JACOB SCHULZ,
LOUISVILLE, KY.

G. BENARD,
ORLEANS, FRANCE.

ROSES ON THEIR OWN ROOTS

A SPECIALTY.

Special Offer for Fall Delivery.

	Per 100	Per 1000
Anna de Diesbach.....	\$4.00	\$39.00
Captain Christy.....	4.00	39.00
Hermosa, 1st size.....	2.25	22.00
" 2nd size.....		16.00
Laurette de Messimy (New China).....	2.00	20.00
Mme. Gabriel Laizet.....	4.00	39.00
Mme. Plantier.....	3.50	30.00
Magnia Charta.....	3.75	30.00
Souy de la Malmaison.....	4.00	39.00
Ulrich Brunner.....	4.00	39.00
AMPELOPSIS VEITCHII, 1 yr. transplanted	6.00	
per 5000 lot.....		40.00
LILACS, CHARLES X, pot grown for		
foreign.....	25.00	

Nursery stock of all descriptions at very moderate prices. Cash with order from unknown correspondents. For particulars apply to

E. BENARD, Jr.,
SAN DIEGO, CAL.

or to C. RAOUX,
296 Pearl St., N. Y.

TREE ROSES.

4 to 5 Feet High.

Pot grown plants, and also from open ground. Best varieties and best plants in the country. Now ready for Fall trade.

Gabriel Marc,
WOODSIDE, L. I., N. Y.

ROSES.

SURPLUS STOCK FOR PLANTING.

	Per 100
500 La France, 3½-inch pots.....	\$5.00
200 Niphotos, " ".....	5.00
200 Niphotos, " ".....	5.00
300 Mermets, " ".....	5.00
100 Bon Silene, " ".....	5.00

All strong and healthy plants.

ALEXANDER MEAD,
GREENWICH, CONN.

SMILAX.

Good strong plants at \$5.00 per hundred.

ROSES.

A fine assortment of Teas—will only name a few of the leading varieties:

Adam, Bride, C. La Barthe, Etoile de Lyon, I. Sprunt, Safrano, Marie Lambert, M. Margottin, M. Van Houtte, P. de Hohenzollern, White Bon Silene, Hermosa, Douglas, Malmaison.

NOISETTES.

M. Niel, Chromatella, Gloire de Dijon, and R. M. Henrietta.

Price, \$4.00 per 100; \$30.00 per 1000.

Have also a good stock of young Hybrids of the following varieties:

Gen. Washington, H. Schultheiss, Mme. A. Duron, Mme. Masson, Paul Neyron, Coquette des Alps, Dr. Hogg, Giant of Battles, Crown Prince, and others, at \$6.00 per 100; \$15.00 per 1000.

Gen. Jacqueminot, \$5.00 per 100; 4 inch pots, \$12.00 per 100.

Strong Baltimore Belle, in 3 inch pots at \$8.00 per 100.

GEO. W. MILLER,

1748 N. Halsted St., CHICAGO.

ROSES.

Mermets, Brides, Papa Gontier, Souy d'un Ami, Bon Silene, Cook, Perle, Niphotos and La France, strong plants from 3-inch pots, \$8.00 per 100.

SMILAX. Strong plants from 2½-inch pots, \$3.00 per 100; \$25.00 per 1000.

1500 SMILAX STRINGS now ready to be cut.

WOOD BROS.,

(Successors to I. C. WOOD & BRO.) FISHKILL, N. Y.

IMPORTED H. P. ROSES.

Worked in on the Manetti Stock, best kinds for forcing. Orders received now for delivery in November. Address

WILLIAM H. SPOONER, Jamaica Plain, Mass.

THE AMERICAN FLORIST

Subscription \$1.00 a year. To Europe, \$1.50.

Advertisements, 10 Cents a Line, Agate;
Inch, \$1.40; Column, \$14.00.
Cash with Order.

No Special Position Guaranteed,
Discounts, 3 months, 5 per cent; 6 months, 10 per
cent; 12 months, 20 per cent.
No reduction made for large space.

The Advertising Department of the AMERICAN
FLORIST is for Florists, Seedsmen, and dealers in
wares pertaining to those lines ONLY. Please to
remember it.

Orders for less than one-half inch space not accepted.

Advertisements for September 1 issue must
REACH US by noon, August 26. Address.

THE AMERICAN FLORIST CO., Chicago.

CATALOGUE DESCRIPTIONS.

What brilliant word painters some of the catalogue compilers are! But, alas, they so frequently look at the same flower through glasses of different color. In one catalogue geranium C. A. Knorr is described as "Brilliant lilac-red, with maculated red spots on upper petals;" in another as "Deep purplish red shading to crimson," and in still another as "Crisp shaded lilac, upper petals fiery red." No wonder substitution is easy. And what need have we of a number of varieties when different men can make such different flowers bloom on plants presumably grown from the same original stock! Again we find geranium Remarkable described in one catalogue as "Very deep rich crimson" and in another as "Very rich deep magenta." It is especially gratifying to note that in one case it is "Very deep rich" and in the other "Very rich deep," because they have practically agreed upon that point, in fact upon everything except the color.

Other descriptions given to the same variety by different catalogues are: "Pink with white center" and "Fiery rose, blending white eye;" "Intense dazzling scarlet" and "Yellowish or orange red;" "Fiery red" and "Brightscarlet;" "Deepest salmon" and "Deep orange overlaid with buff;" "Rich vivid crimson, shaded with carmine" and "Double violet, scarlet flowers;" "Delicate rose pearl color" and "Deep lilac and tender rose;" "Rose color" and "Pink;" "Rich deep maroon crimson" and "Velvet shaded purple" (what sort of a color is velvet?); "Crisp pink" and "Bright clear pink;" etc.

But here is the gem: "Garnet red tinted with rose brick color. Color new." Well, we should hope it was new. We trust that "Black amaranth marmorated chestnut brown" is also new and will never grow old. We have always felt weak on the color question, but we no longer feel lonesome.

Wouldn't it be a good idea to have some one give us a little instruction on this matter at Buffalo? A few object lessons might do some good, and we certainly need it.

THE GARDEN'S STORY, By George H. Ellwanger, is a charmingly written book which will be greatly enjoyed by every one who loves plants. And owing to the very attractive way in which the subject is presented it will undoubtedly be widely read and reveal the changing beauties of the hardy flower garden to many who would never dream of looking into the average book on gardening. We believe that this little book is destined to do great good in this way. It relates the various aspects of the author's garden near Rochester, N. Y., from early spring

until late autumn of the year 1888, treating the subject in such a delightful way as to keep the interest of the reader to the very end, while giving an immense amount of practical information. There is a copious index which enhances its value for reference. Published by D. Appleton & Co., New York; A. C. McClurg & Co., Chicago.

THE PENNSYLVANIA HORTICULTURAL SOCIETY has issued the premium list for the chrysanthemum show to be held November 11-16 next, and an advance sheet of premiums for the "Spring and Bulb Show" in April, 1890. The chrysanthemum premiums are very liberal, that for 12 plants 12 varieties being: First, \$100; second, \$85; third, \$65; fourth, \$50. For collection of orchids at the spring exhibition, \$75; \$50 and \$30 are offered and there is a lengthy list providing for nearly all flowering plants that are in season. For 12 buds of the Wootton rose there are special premiums of \$150, \$100 and \$50. Copies of the premium list may be obtained from D. D. L. Farson, secretary, Horticultural Hall, Philadelphia.

SOCIETY DUES.—If you can not possibly attend the Buffalo convention don't fail to at least remit the annual dues of \$3 to the secretary or treasurer, or send the amount by some friend who will attend, so that your membership in the society will be maintained. The annual report is alone worth many times the amount, and you should not fail to do your share toward the maintenance of the national society in the good work it is engaged in. If the dues of all members are promptly paid this year the society can go forward with some very important work, which it has been prevented from pushing through lack of funds.

THERE ARE some public spirited citizens in Cincinnati as is evidenced by the liberal special premiums offered at the first chrysanthemum show of the Cincinnati Florists' Society, which will be held November 12 to 16. The premium list in full appears in the supplement.

THE NEW YORK Times describes the foreman for a well known grower as "A quiet, diffident man, who, from long association with plants is seedy in appearance and slow at taking root, but when once started blooms quickly and is flowery of speech."

Coming Exhibitions.

August 20-22, Buffalo.—Exhibition at convention of Society of American Florists.

September 17-20, Boston.—Annual Exhibition Mass. Hort. Society.

November 5-8, Chicago.—Chrysanthemum Show Chicago Florist Club.

November 5-9, Indianapolis.—Chrysanthemum Show Society of Indiana Florists.

November 12-16, Philadelphia.—Chrysanthemum Show Pennsylvania Hort. Society.

November 12-14, Boston.—Chrysanthemum Show Mass. Hort. Society.

November 12-14, Orange, N. J.—Chrysanthemum Show New Jersey Floricultural Society.

November 12-16, Cincinnati.—Chrysanthemum Show Cincinnati Florist Club.

November 13-14, Worcester, Mass.—Chrysanthemum Show Worcester County Hort. Society.

Flower Beds in Chicago Parks.

To the editor of *Garden and Forest*:

SIR.—Allow me to express my satisfaction at Herr Jaeger's denouncement of the "lunacy" of the flower bed decorations of the South Park of Chicago.

I speak feelingly on the subject, not only because I have been held responsible for them, but what is still more aggravating, because I have been complimented upon them—and that by educated people—often than for any portion of what really constituted my design for the park. Only last summer a gentleman from New England, and a graduate of Harvard, to whom I chanced to be introduced, asked if the South Park was not my work, and immediately launched into an enthusiastic description of a life-size floral representation of three men rowing a boat.

My hope has been that men of sufficiently cultivated taste to appreciate justly the floral eccentricities that have distinguished that city for years (camels, elephants, base ball players, etc.), would equally appreciate the anomalous position of a landscape gardener in the mind of the average Park Commissioner, and not hold him responsible for outrages he is powerless to prevent. But the number who have spoken to me of this form of monstrosity in terms of admiration is so large in comparison with those who have treated it as it deserves, that at times I have felt disheartened and ready to despair of ever finding a more elevated standard of public taste.

H. W. S. CLEVELAND.

Minneapolis, Minn.

—*Garden and Forest*, July 31.

[Ah, there's the rub! Crowds flock to view these "floral eccentricities" while giving barely a glance to the other very attractive features of the park. And these crowds include people of education and refinement as Mr. Cleveland has shown. And the daily press heaps praise without stint upon these "monstrosities." While we do not favor this style of gardening we fail to see the necessity for any violent "denouncements" of it. It is attracting to the parks many who would not otherwise go, and in this way is doing good. Let us have patience. We are still infants in the art of gardening.—ED. A. F.]

Catalogues Received.

Jas. M. Thorburn & Co., New York,
Holland bulbs; Damman & Co., San
Giovanna a Teduccio, Italy, bulbs and
orchids; E. H. Krelage & Son, Haarlem,
Holland, bulbs; H. H. Berger & Co., San
Francisco, trees, shrubs and plants;
United States Nurseries, Short Hills, N.
J., orchids.

SUBSCRIPTIONS for the AMERICAN
FLORIST may be left with any of the
following:

Baltimore,	Philadelphia,
Robt. J. Halliday.	Edwin Lonsdale.
Boston,	Evans & Battles.
Wm. J. Stewart.	New York, W. S. Allen,
Cincinnati,	Ang. Rolker & Sons.
Harry Sanderbrun.	C. H. Joosten.
Cleveland, O.,	Siebrecht & Wadley.
E. G. Campbell.	Pittsburgh,
Detroit,	J. R. & A. Murdoch.
J. Breitmeyer & Sons.	St. Louis, Michel Plant
Hamilton, Ont.,	& Seed Co.
Webster Bros.	San Francisco,
Harrisburg, Pa.,	Thos. A. Cox & Co.
J. Horace McFarland.	Toronto, Ont.
Louisville, Ky.,	J. A. Simmers.
George Thompson &	Washington, D. C.,
Sons.	L. Schmidt & Sons.

SYRACUSE, N. Y.—P. R. Quinlan & Co. have added a new house 125 x 25.

GRAND HAVEN, MICH.—Geo. Hancock has added another house 100 x 20.

EGGERTSVILLE, N. Y.—R. E. Baetger has built a new carnation house 100 x 20.

SANDUSKY, O.—Florist Wm. Dilger will give a chrysanthemum show at Fisher's Hall, November 7.

MILWAUKEE.—Clark Bros. have gone out of business. It is reported that the property which they occupied has changed hands and that the greenhouses will be torn down. Jacob Schiner has rented ground and greenhouses of E. Schoiders on the Port Washington road. Fred Schmaling has added three new greenhouses and has severed his connection with the Calvary Cemetery. It is understood that he intends to open a retail store in the city also.

GREENHOUSE HEATING.—The Herendene Mfg. Co., Geneva, N. Y., send us a copy of a neatly gotten up little book of 100 pages containing an essay on greenhouse heating, directions for piping greenhouses for steam heating and several tables giving surfaces and capacities of pipes and the number of feet of pipe necessary to heat a given amount of space. There is also a very good engraving showing method of piping, in addition to a catalogue of their boilers.

KENNICOTT BROS., WHOLESALE FLORISTS, TO THE TRADE ONLY.

ALL CUT FLOWERS IN SEASON.

Write for price list. Consignments solicited.

WIRE-WORK made to order, and in stock.

27 Washington Street, CHICAGO.
TELEPHONE NO. 466.

IF YOU WANT CHOICE, FRESH
CUT FLOWERS,
WELL PACKED AND SHIPPED
PROMPTLY, YOU SHOULD ORDER OF

CHAS. H. FISK, Wholesale Florist

116 & 118 DEARBORN STREET,
CHICAGO,

AND RELY ON GETTING THE BEST
STOCK IN THE MARKET.

Store Open Day and Night.

I keep a full stock of
WIRE DESIGNS
of superior workmanship and at lowest prices. Extra pieces of any description made to order on short-est notice. Send for Catalogue.

CHAS. E. PENNOCK, WHOLESALE FLORIST

38 So. 16th Street, Philadelphia, Pa.

JOHN M. HUDSON, WHOLESALE Commission Dealer in Cut Flowers,

1225 Market St., ST. LOUIS, MO.

Quick sales and prompt returns guaranteed. Consignments solicited.

Wholesale Markets.

Cut Flowers.

BOSTON, Aug. 9.	
Roses, Teas.....	\$1.00
" Fancy.....	3.00 @ 4.00
Carnations.....	.50 @ 1.00
Valley.....	1.00
Asters.....	1.00
Mignonne.....	.25
Gladiolus.....	1.00
Japan Lilies.....	6.00
Tuberose.....	.50
Pink Pond Lilies.....	8.00
Adiantum.....	1.00
Smilax.....	12.00

NEW YORK, Aug. 9.	
Roses, Perles, Niphetos, Souv.	\$2.00 @ \$3.00
" Mermets, Brides.....	2.00 @ 4.00
" Cousins.....	2.00
" La France.....	4.00 @ 5.00
" Gontiers, Bennetts.....	1.00
" Am. Beauty.....	8.00 @ 12.00
Smilax.....	10.00
Carnations, long, fancy.....	1.00
Adiantum.....	1.00

PHILADELPHIA, Aug. 9.	
Roses, Perles.....	\$2.00 @ \$3.00
" Beauties, Larks.....	8.00
" Pierre Gaultier.....	8.00
" La France.....	3.00 @ 4.00
" M. Gaultier, Niphetos.....	2.00
Carnations, long.....	1.00
Carnations, short.....	.50
Coreopsis, Cornflowers, Myosotis.....	.50
Asters.....	1.00
Gladiolus.....	2.50
Water lilies.....	.35 @ .50
Pink water lilies.....	1.00
Smilax.....	15.00
Adiantum.....	1.00

CHICAGO, Aug. 10.	
Roses, Perle, Niphetos.....	\$3.00
" Bon Silences.....	1.00 @ 2.00
" Am. Beauties.....	12.00
" La France, Mermets.....	3.00 @ 4.00
" Brides.....	4.00
" Bennetts, Dukes.....	4.00 @ 5.00
Carnations, short.....	.50 @ .60
Carnations, long.....	.75 @ 1.00
Gladiolus.....	10.00 @ 15.00
Smilax.....	15.00
Adiantum.....	1.00 @ 1.25
Gladiolus.....	8.00 @ 10.00
Tuberose.....	.25 @ 1.50
Sweet Peas.....	.25 @ .30

WM. J. STEWART, Cut Flowers & Florists' Supplies

WHOLESALE

67 BROMFIELD ST., BOSTON, MASS.

N. F. MCCARTHY & CO., WHOLESALE FLORISTS

and Jobbers in Florists' Supplies,

1 MUSIC HALL PLACE, BOSTON, MASS.

Also entrance from Hamilton Place through Music Hall.

We keep a large supply of Fancies and Carnations always on hand. Return telegram sent immediately when unable to fill orders.

—Auction Sales of Plants Spring and Fall.—

WELCH BROS., WHOLESALE FLORISTS, 165 Fremont Street, BOSTON, MASS.

We make a specialty of shipping choice Roses and other Flowers, carefully packed, to all points in Western and Middle States.
Return Telegram is sent immediately when it is impossible to fill your order.

W. F. SHERIDAN, Wholesale and Commission Dealer in CUT FLOWERS,

No. 50 W. 30TH ST., NEW YORK.

Orders to be shipped will receive prompt attention.

ROSS & MILLANG, WHOLESALE FLORISTS,

No. 1168 Broadway,

Bet. 27th & 28th Sts., NEW YORK.

THOS. YOUNG, JR., WHOLESALE FLORIST

20 West 24th Street,
NEW YORK.

VAUGHAN'S CUT FLOWER DEPT.

88 State St., - CHICAGO.

Receives Fresh Flowers morning and evening DAILY.

Send your orders to the above address, where they will be attended to properly.

REMEMBER.—When any one in Chicago has flowers to sell, VAUGHAN has also.

WRITE FOR QUOTATIONS.

W. S. ALLEN, WHOLESALE DEALER IN CUT FLOWERS,

36 EAST 23rd STREET, NEW YORK.

ESTABLISHED 1877.

Price List sent upon application.

LaRoche & Stahl, Florists & Commission Merchants

—OF—

CUT FLOWERS, 1237 Chestnut Street, - PHILADELPHIA.

Consignments Solicited. Special attention paid to shipping.
Mention AMERICAN FLORIST.

C. STRAUSS & CO.,

Telephone 977. WASHINGTON, D. C.

Roses planted for Winter 1889-90.
20,000 WOOTTON, 2,000 MME. WATTEVILLE
15,000 PERLES, 2,000 MME. CUSIN,
10,000 LA FRANCE, 1,000 LUCIOLE,
3,000 AM. BEAUTY, 6,000 BRIDES,
2,500 PURITAN, 2,000 MERMETS,
2,000 MME. HOSTE, 2,500 GONTIERS.

EDWARD C. HORAN, WHOLESALE FLORIST,

36 WEST 29TH STREET,

The Bride, Mermets,
and Am. Beauties,
SPECIALITIES. NEW YORK.

HAMMOND & HUNTER, Wholesale dealers in Cut Flowers and Florists' Supplies

61 West 30th Street, NEW YORK.

GEO. MULLEN, WHOLESALE FLORIST.

Florists' Supplies Always in Stock.

17 CHAPMAN PLACE, (Off School St. near Parker House), BOSTON, MASS.

Orders by Mail, Telegraph, Telephone or Express promptly filled.

CUT FLOWERS

The choicest Cut Flowers at lowest market rates shipped C. O. D. Telephone connection. Use A. F. Code when ordering by telegraph. For prices, etc., Address,

J. L. DILLON, BLOOMSBURG, PA.

THE OAKLEY ROSE HOUSES ROSE BUDS WHOLESALE.

Beauty, Bride, La France, Perle,
Bennett, Niphetos, Mermets, Papa Gontier
CHAS. L. MITCHELL, MGR.,
P. O. Box 188, CINCINNATI, OHIO.

Also plants of above by doz., 100 or 1000. 2, 3 & 4-in. Select Stock. Plants in quantity at discount.
WRITE FOR PRICES.

☉Re Seed Trade.

SEED TRADE ASSOCIATION.

H. W. JOHNSON, Philadelphia, president; ALBERT M. McCULLOUGH, Cincinnati, secretary and treasurer. The eighth annual meeting at Saratoga Springs, N. Y., June, 1896.

VINE SEED crops are said to be doing well in Nebraska.

JEROME B. RICE is at the Thousand Islands with his family.

MR. J. H. MUNSON is now with L. L. May & Co., at St. Paul, Minn.

HIRAM SIBLEY & Co. have completely closed out their seed business at Rochester.

THE PEA CROP is said to be only a moderate one and beans almost a failure in many sections.

IT IS RUMORED that a corporation has been formed of the Geo. S. Haskell affairs and that a 25 per cent cash dividend will be paid to creditors.

MR. J. E. NORTHRUP returned from Europe July 28 in the Guion Steamer Arizona. He complains at the lack of elevators in London and Paris.

MR. FREDERICK HOWCROFT, of Howcroft & Watkins, London, sailed for Europe on having made a week's trip through the principal American seed centers. Mr. H. has invented an automatic letter receiver, which is likely to bring him a handsome fortune. This was his eighth visit to America.

News Notes.

LINCOLN, NEB.—C. H. Fry is building three new houses.

SANDUSKY, O.—Wm. Dilger has added a new house 56 x 11.

ARLINGTON, MD.—A. Cook, Jr., has added a house 100 x 16.

GLENVILLE, O.—L. A. Schmitt has built a new house 70 x 16.

HAMPDEN, MD.—M. A. Hauske has built a new house 70 x 12.

WASHINGTON.—C. F. Hale has built another rose house 230 x 25.

OAKLAND, MD.—Henry Webber has built two new houses 60 x 22.

COLUMBUS, O.—John B. Romans is building three large new houses.

CUMBERLAND, MD.—Bopp & Co. have added three new houses 75 x 11 each.

ASHTABULA, O.—Chas. H. Bliss & Son have completed one new house 86 x 20.

POTTSVILLE, PA.—J. Keim & Son have erected two new houses 80 x 20 and 100 x 12.

PORT HOPE, ONT.—John Hume has completed a new warehouse with office.

ALLEGHENY, PA.—Fred Burki has built two houses 100 x 20 and one 75 x 20.

ST. ALBANS, VT.—Geo. Cook has built one new house 54 x 22, heated by hot water.

YORKVILLE, N. Y.—Geo. H. Benedict has built four houses 100 x 14 each, heated by steam.

PORTSMOUTH, VA.—Mrs. M. F. Dougherty has completed two houses 14 x 60 and one 42 x 10.

DETROIT, MICH.—J. Breitmeyer & Sons have now 45,000 feet of glass at Mt. Clemens, Mich.

GENEVA, O.—J. M. Simmons is preparing to build two more houses 50 x 20 and 80 x 20 respectively.

WACO, TEXAS.—The annual meeting of the Central Texas Hort. Society was held here July 16 and 17.

BUFFALO.—John Brauer has built a new house 110 x 16. Bischoff & Sprissler have added a new office 25 x 15.

GRAND RAPIDS, MICH.—Henry Smith has added two houses 90 x 20, and is preparing to put in a new steam boiler.

SAN FRANCISCO.—At the last meeting of the Floral Society it was decided to hold the fall exhibition of the society in October.

FINDLAY, O.—M. B. Patterson has added two houses, one 110 x 20 and the other 110 x 10. Natural gas is used for fuel.

ATLANTA, GA.—At the meeting of the Atlanta Hort. Society July 21 there was an unusually excellent display of plants and flowers.

ELYRIA, O.—Sears & Co. have added two new houses 70 x 12 each, heated by steam. A. J. Graham has completed five houses 50 x 12.

KALAMAZOO, MICH.—Mr. S. C. Cobb has resigned his position as superintendent of the cemetery after 20 years of faithful service.

NEW CASTLE, PA.—Paul Butz & Son are building four new rose houses, two 25 x 100 and two 16 x 100, to be heated by steam, using natural gas for fuel.

SARNIA, ONT.—The mayor and commissioners recently visited Belle Isle Park, Detroit, preliminary to arranging for the laying out of a 35 acre park here.

ALLEGHENY, PA.—Theo. Becker has built a new rose house 104 x 24. He has also added nine frames 66 x 7 which are arranged to be heated by 2-inch steam pipes.

COLORADO SPRINGS, COL.—Wm. Clark is building two new houses, one 22 x 65 and the other 20 x 100, both for roses. S. D. Bradford is adding a violet house 65 x 12.

NEW BEDFORD, MASS.—The Gardeners' and Florists' Club intends to hold a flower show early in September and has arranged a very liberal premium list for the same.

PITTSBURG—E. W. Williams is building two houses 80 x 20. Natural gas will be used for fuel. Chas. T. Siebert has finished a rose house 180 x 18 and will build another 165 x 20.

BALTIMORE.—Regarding your note that John Donn was preparing to move his greenhouses your informant was in error. Mr. Donn has no thought of changing from his present location.

DALLAS, TEXAS.—R. Drumm & Co. are building a floral store with greenhouses attached, on Main street. They are also building a new rose house 18 x 100 at their place in Fort Worth.

PITTSBURGH—A. W. Smith has built five houses 67 x 11, heated by natural gas. P. C. Erdman has finished one house 100 x 22. A. Cook, Jr., Lafayette avenue, has built a new house 100 x 16.

BUFFALO.—At the last meeting of the local club, held July 27, an interesting paper on overhead heating in greenhouses by E. S. Bartholomew, Westfield, N. Y., was read and discussed.

SPRINGFIELD, O.—McGregor Bros. are adding three more houses 125 x 20 each, giving them now 50,000 feet of glass. Wilson Bros. have completed six houses 60 x 10, one 60 x 16, one 20 x 11 and one 64 x 12.

LAKE GENEVA, WIS.—The hail storm of July 27 did considerable damage here. Thos. H. Price had over 800 feet broken and others had quite a lot of glass smashed. Some of the hail stones were three inches in diameter.

CHESTER, PA.—Thos. F. Delahunt has re-opened and fitted up the store formerly occupied by the Chester Floral Co., at 613 Edgmont avenue, and is building another rose house 100 x 20 at his place at 13th and Potter streets.

COLUMBUS, O.—G. Drobisch has added one house 20 x 100 and three 11 x 106 each; J. R. Hellenthal two 75 x 10 each; Julius Drobisch three 65 x 15 each, and Franklin Park Floral Co. two 115 x 18 and two 115 x 12 each, heated by steam.

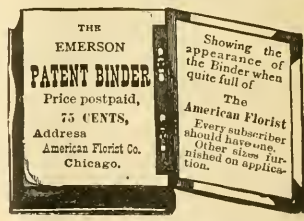
RICHMOND, VA.—W. A. Hammond has built two new houses 100 x 20 each, and is preparing to erect another 200 x 20. J. J. Harvery has finished a palm house 30 x 20. Mrs. A. E. Grant has completed five houses 100 x 20 each with packing room 60 x 20, heated by steam.

BALTIMORE.—The new palm house in Druid Hill park is 50 x 50 feet and 63 feet high with an annex 20 x 23 feet. It is entirely of stone, iron and glass, except some wood work in the sashes. It was originally intended to have two wings built to the house, but action in that direction has been indefinitely deferred.

BALTIMORE.—J. G. Erdman has completed a new house 100 x 22. At Govans-town Brackenridge & Co. have added a rose house 100 x 16, and Isaac Moss one 100 x 20. At Waverly O. J. Wight has added two houses 100 x 12 and 100 x 18 respectively; C. Hess one 100 x 20; Joseph Wolf three 100 x 20 each. R. Schmidt has added two 70 x 18 and will erect another 120 x 40.

	Per 1000
10,000 Named Lemoine's Hybrid Gladioli.	\$12.00
15,000 fine mixed Gladioli.	20.00
15,000 Double Tiger Lily, 2 and 3 years.	20.00
10,000 Hyacinthus Candicans, 2 and 3 years.	5.00
5,000 Montpeliers.	25.00
10,000 Japanese Palmists, in pots.	30.00
10,000 Spiraea Van Houttei, in pots.	30.00
10,000 Flowering Shrubs, in pots.	\$20.00 to 35.00

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GREENHOUSE HEATING.

BY A. B. FOWLER.

Explains fully all the best systems of heating greenhouses by both hot water and low-pressure steam. Tells you the points to consider in selecting an apparatus. How to adjust same to various locations; gives the results of the latest scientific experiments. Shows how to compute the number of feet of pipe required for a given space; draft and other important matters. It is highly recommended by Mr. John Thorpe and others. Postpaid, 75c.

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AUG. ROLKER, Auctioneer.

APPLE GERANIUM.

7000 Seed—this season's crop—at 40c. per 100, or \$3.50
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Tree and Pot Labels.

Printed Tree Labels ready wired.

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Ampelopsis Veitchii,

3 inch pots, from 2 to 2½ feet long, \$5.00
per 100.

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One of Myers & Co.'s (Philadelphia) Hot Water
Boilers, largest size, in good condition—used three
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which is extra heavy. For terms, etc., apply to

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AND

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THE WEST SHORE RAILROAD TO THE BUFFALO CONVENTION.

THE WEST SHORE RAILROAD offers the direct and most popular route between
NEW YORK and BUFFALO to the florists who contemplate visiting Buffalo at the time
of the next convention, August 20 to 24, 1889, inclusive.

As a scenic route the "West Shore" is unsurpassed, passing as it does through the
magnificent scenery on the west bank of the world famed HUDSON RIVER and the
picturesque MOHAWK VALLEY. A view of these scenes alone is worth many times
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The equipment in luxurious appointments and elegance of finish is unsurpassed.
Magnificent Drawing Room and Sleeping Cars on all through express trains between
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The lowest rates of fare authorized will be granted to florists purchasing their tickets
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Florists from BOSTON and NEW ENGLAND points can secure through Sleeping Car
accommodations to Buffalo via Fitchburg (Hoosac Tunnel Route) and West Shore
Railroads. The Fitchburg Railroad is the only line running Sleeping Cars through
between Boston and Buffalo in connection with the West Shore Railroad.

The following condensed time table shows departure of West Shore Trains from New York and
intermediate points, and the arrival of these trains at Buffalo:

	P.M.	A.M.	A.M.
Leave New York (ft. Jay St., N. R.).....	* 5.00	* 9.40	† 3.10
" New York (ft. W. 43d St.).....	5.15	9.55	3.15
" Weehawken (West Shore Station).....	5.30	10.10	3.30
" Cracston.....	6.47	10.10	11.28
" West Point.....	6.49	10.13	11.34
" Cornwall.....	7.00	10.25	11.42
" Newburgh.....	7.19	10.37	11.50
" Kingston.....	8.20	11.55	1.00 P.M.
" Saugerties.....	8.37	12.17 A.M.	1.19
" Catskill.....	8.55	12.42	1.41
" Albany.....	8.45		† 1.25
" Canajoharie.....	11.23	3.50	† 4.42
" Utica.....	12.32 A.M.	5.21	5.29
" Syracuse.....	1.58	7.30	7.10
" Newark.....	3.12	9.15	8.43
" Rochester.....	4.10	10.15	9.35
Arrive Buffalo.....	6.05 A.M.	12.30 P.M.	11.40 P.M.
* Daily. † Daily except Sunday.			7.40 P.M.

The following condensed time table shows the leaving time of through Express Trains from
Boston via Fitchburg R. R., and the arrival of these trains at Buffalo via West Shore R. R.

Leave Boston via Fitchburg R. R.....	† 8.30 A.M.	* 3.00 P.M.	* 7.00 P.M.
Arrive Buffalo via West Shore R. R.....	11.40 P.M.	6.05 A.M.	12.30 P.M.
* Daily. † Daily except Sunday.			

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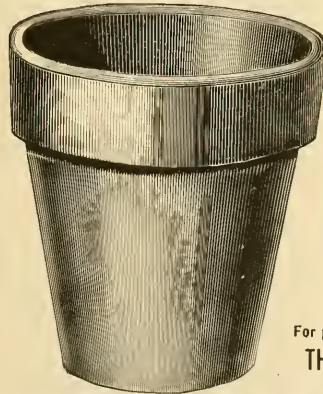
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THE
BEST,
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and most durable pots manu-
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Endorsed by all the leading
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For price list of the "STANDARD" POTS, address
THE WHILLDIN POTTERY COMPANY,
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Every Florist! Every Nurseryman! Every Seedman!

SHOULD HAVE
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Address **AMERICAN FLORIST CO.,** 54 La Salle St., CHICAGO.

CARNATIONS.
350 Alexander, and 225 Hinsdale, at \$5.00 per 100.
Field grown—all there is left.

VREELAND BROS., Florists, Paterson, N. J.

DON'T FORGET TO EXAMINE the exhibit of the
Furnham Boilers at the Buffalo Convention,
Aug. 20, 21 and 22.

HERENDEEN Mfg Co., Geneva, N. Y.

Ants and Mealy Bugs.

We would be pleased to be enlightened as to what connection ants have in the formation of scale and mealy bug on plants. Have noticed that where there is a number of ants on plants we invariably find scale and mealy bug, while on plants not molested by ants we are not troubled with either scale or mealy bug showing that the ants must have something to do with forming one or both of these pests. Will some one please shed a little light on the subject and indicate the speediest way to get rid of the ants?

J. H. WADE & Co.

[The ants have nothing to do "in forming one or both of these pests," they are merely attracted to them by the "honey" or excreta which they deposit, and which the ants feed upon. And in order to increase this field of honey the ants do carry mealy bugs, aphides, etc. from one part of the plant to another, to colonise them there as it were. But if you keep your plants perfectly clean from parasitical insects as scale and mealy bugs, ants will never trouble them above ground.]

SMILAX.

Extra fine plants, twice cut back, from 2-inch pots, \$3.00 per 100; \$25.00 per 1000. 5 in at 100, \$50 at 1000 rates.

THEO. BOCK,
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4000 SMILAX.

Fine stocky plants, 3 inch pots, \$3.50 per hundred; \$32.00 per thousand. 2 inch pots, \$2.00 per hundred.

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First Class, from 2½-inch pots. Price, \$3.00 per 100. \$25.00 per 1000.

PANSIES.
Dreer's Finest Mixed Pansies, \$5 per 1000. Address

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500 plants, 2½-in. pots, \$3.00 per 100. THE WISCONSIN FLOWER EXCHANGE, 133 Mason Street, MILWAUKEE, WIS.

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THIS SEASON'S CROP OF AQUILEGIA SEED. My collection contains over 100 varieties and hybrids, and is the largest in this country.

Mixed, per oz. 75c; per lb. \$8.00.

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Postage 16 cents per 100 Letters. Try them.

SEND FOR SAMPLE. Address

FRED GEAR,

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200 Tuberous Begonia, 4-inch pot.....	Per 100
200 Metalica " 2 and 3-inch pots.....	\$10.00
200 Metalica " 2 and 3-inch pots.....	4.00
200 Smilax, 1 year old.....	\$10.00
200 Eucliaris, flowering bulbs.....	\$15.00 to \$25.00

W. W. GREEN, SON & SAYLES,
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Portia and De Grauw Carnations.....per 100, \$1.50
A. Veitchii, 2x3 rose pots....." 2.00

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BULBS, SHRUBS, ROSES AND PLANTS, FRUIT AND ORNAMENTAL TREES,

Remarkably fine and complete stocks of
PEARS, PLUMS, PEACHES, CHERRIES,
APPLES, QUINCES, APRICOTS, MULBERRIES,
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THIRTY-FIFTH YEAR, 700 ACRES, 24 GREENHOUSES.

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ALL CUTS, SENT ON RE-

CEIPT OF 50 cts. WHICH

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A larger one \$1.50.

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75,000 VIOLET PLANTS FOR SALE.

All good, strong, healthy plants, 10 per cent. better
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Marie Louise, double blue.....\$2.50 \$22.00

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Ranunculus of Swallow White, well rooted, 1.00 8.00

Also 300 Magnolia grandiflora in 2 and

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Or will sell 500 of any of the above at 1000 rates.

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Pteris tremula, 2-inch pots.....\$3.00

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Early Delivery Fall 1889

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Lilium Auratum, 6 to 7-inch circum.	\$ 4.00	\$35.00
" " 7 to 8 " "	5.00	45.00
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" " Monstro, 4-in. diam.	8.00	70.00
Alum (Speciosum) 7 to 8-in. cir.	9.00	80.00
" " extra fine, 10-in. circum.	10.00	90.00
Rubrum, 7 to 8-in. circum.	6.00	50.00
" " Monstro.	7.00	60.00
Longiflorum Ext., 4 to 5-in. cir.	3.50	30.00
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" " extra fine, 7 to 8-in. cir.	6.00	50.00
Kramer, ex. choice, large bulbs	7.00	60.00
Batemanni.	6.00	50.00

We repack Bulbs on arrival from Japan from heavy clay into sawdust, reducing weight more than half, pick out and replace all decayed ones, pay 20 per cent. duty and deliver f. o. b. at above prices. Do not fail to send for our full list of

RARE LILIES, SEEDS, PALMS, ETC. NOW READY.

H. H. BERGER & CO.,
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FORCING BULBS

VALUABLE NOVELTIES

IN TULIPS.

BEST FORCING DAFODILS.

Write for new list, now ready.

BENJAMIN RIMBAUD,

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TOULON var. FRANCE.

Telegraphic Address, RENRIMBAUD, TOULON.

MR. RIMBAUD is now booking
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Early White Roman Hyacinths,

PAPER WHITE NARCISSUS,
DOUBLE ROMAN NARCISSUS,
LILUM CANDIDUM,
ALLIUM NEAPOLITANUM,
FREESIA REFRACTA ALBA
ODORATA,

And many other French Bulbs (good for forcing). Prices on application.

As some of these bulbs, especially White Roman Hyacinths, last year were not sufficiently produced for the demand

ORDER EARLY TO SECURE STOCK.

Immortelles Dyed and Natural Yellow at moderate prices.

J. A. DE VEER,

183 WATER ST., NEW YORK,

offers Finest Stock of DUTCH BULBS, ROMAN HYACINTHS, PAPER WHITE NARCISSUS, LILUM CANDIDUM and HARRISII. LILY OF THE VALLEY (True Berlin pips and Dutch clumps), FREESIAS, CALLAS, AND OTHER DESIRABLE

FORCING BULBS FOR FALL DELIVERY.

Also prime Nursery Stock, such as Roses, Azaleas, Camellias, Rhododendrons, Seeds, etc., from leading growers in France, Belgium, Holland and Germany, at lowest prices.

Sole Agent for HOOPER'S Celebrated Porcelain Flowers.

CATALOGUES FREE TO THE TRADE.

WRITE FOR ESTIMATES.



BULBS.

LILUM CANDIDUM, home grown, extra large for forcing. Now ready.

HARRISII, Bermuda grown. Now ready.

CALLA, large, California grown roots, to arrive during August.

FREESIA REFRACTA ALBA. Now ready.

ROMAN HYACINTHS, to arrive latter part of August.

NARCISSUS POETICUS. Now ready.

Prices on above bulbs on application.

SEEDS.

Cineraria Hybrida, extra choice	Trade pkts. 50c. each
Calceolaria	50c. "
Primula Chinesis fimbriata, white or red	50c. "
Pansy, extra large flowered, best strain	1/2 oz. \$1.00
fine mixed	per oz. 1.50
Smilax	per oz. 1.00
Hollyhock, 6 varieties	10c. per pkt., 50c. for the six.
choice mixed	25c. per pkt.

Address MICHEL PLANT AND SEED CO.,
ST. LOUIS, MO.

F. E. McALLISTER,

SEED AND BULB MERCHANT, 22 DEY ST., NEW YORK.
SPECIAL OFFER OF FORCING TULIPS. ALL FIRST QUALITY.

Artus	\$11.50 per 1000.	Duc von Thol, Scarlet	\$ 9.00 per 1000
Belle Alliance	17 50 "	Duchesse de Parme	14.00 "
Crimson King	9.00 "	Kalzers Kroon	25.00 "
Canary Bird	24.00 "	La Fete	15.00 "
Chrysolort	24.00 "	Yellow Prince	24.00 "

1000 Comprised of 100 each of the above sorts, @ \$20.00. Choice mixed Forcing Tulips, @ \$10.00 per thousand.

DICKSONIA ANTARCTICA.

From 3 to 11 feet high, \$3.00 per foot.

CYCAS REVOLUTA.

From 75 cents to \$3.00 each.

CALLA LILIES.

Large flowering bulbs, \$9.00 per 100; \$1.50 per doz.

CHINESE NARCISSUS BULBS.

(Chinese Sacred Lily). \$7.00 per 100; \$1.25 per doz.

LILUM AURATUM BULBS.

Flowering bulbs, 2 1/2 inches in diameter, 75 cents per doz; \$4.00 per 100.

PAMPAS PLUMES.

1st quality, 24 to 30 inches, \$1.25 per doz.; \$8.50 per 100. Small Plumes, prices on application.

SMILAX SEED (NEW CROP).

80 cents per oz.; \$11.00 per lb.

THOS. A. COX & CO.,

411, 413 & 415 Sansome Street,

SAN FRANCISCO, CAL.

	Per 100	Per 1000
5000 HYDRANGEA OTAKSA and THOS. HOGG, strong plants, in 3-inch pots	\$6.00	\$50.00
FRESH SMILAX SEED, @ \$1.00 per ounce.		
5000 SMILAX PLANTS in 3 1/2-inch pots at	3.00	25.00
3-inch pots	4.00	35.00
2000 FOSIES—Catherine Mermel, The Bride, Perle des Jardins, etc., 3 1/2-inch pots		7.00

FOR FALL DELIVERY:

5000 CARNATIONS, consisting of Grace Wilder, Anna Webb, Snowdon, Century, from \$6.00 to \$8.00 per hundred.
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Peas, Broccoli, Cabbage, etc., of the newest and best varieties.

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" " 7 to 9 inch. . . . 9 50 " 90 00 "

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Plants ready to ship at all times.

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will be for sale by all dealers next January. To all wishing a description, or to catalogue this New Pure White variety, a description with prices will be sent on application.

V. H. HALLOCK & SON,
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CHRYSANTHEMUM

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I have a fine stock of this sterling Novelty to offer in quantity to the trade for next season's trade. Illustrated Circular with full descriptions, terms, etc., sent free on application.

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Packet (about 1000 seeds) \$1 00
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PRIMULA OBCONICA PLANTS, from 3 & 3 1/2-in. pots, \$1.25 per doz; \$10 00 per 100.
PRIMULA FLORIBUNDA, 2 inch pot plants, 60 cts. per doz; \$4 00 per 100.

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ELGIN ROSE CO.,
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Chicago.

R. J. Donovan's new plant at High Ridge consists of five houses 100 x 15 each and one 100 x 12.

Nick Henson, of Lake View, has built four houses 120 x 20 each, heated by hot water.

S. Muir has bought 12 lots in South Englewood and intends to eventually build some greenhouses on them.

At Park Ridge H. E. Redelings is building two carnation houses 120 x 10 each. M. Lemke is building a rose house 100 x 10, and one for carnations 100 x 16. J. T. Janes is building a new house 100 x 10. E. Weinhoeber & Co.'s eight new houses are 100 x 20 each.

At Lake View Geo. Wittbold has built four new houses, two 50 x 16 and two 100 x 16, for palms and ferns.

The West Park commissioners have had plans drawn for the construction of a second Champs Elysees and have appropriated \$31,000 to have the plans carried out, \$5,000 of which will be expended this fall. The work is to be done in connection with Union Park, in which great changes will be made. In Douglas Park conservatories are being erected at an expense of \$30,000, and additional improvements are being made at an expense of \$10,000. The sum of \$20,000 will be expended on improvements in Garfield Park, the same in Humboldt Park and a like amount divided among the four small parks on the west side.

PANSY SEED. NEW CROP.

Orders booked now for prompt delivery at the following special rates:

TRIMARDEAU, choicest French mixed, unsurpassed in brilliancy of color and size of flowers, some measuring from 3 to 4 inches across. Price, per lb. \$2.00, ½ oz. \$2.50, ¼ oz. \$1.50, 1/8 oz. \$1.00.

Trimardeau, golden yellow, ½ oz. \$1.50, 1/8 oz. \$1.00.

TRIMARDEAU, spotted, large flowering showy Pansies, somewhat smaller than Trimardeau, but of even more exquisite markings and richer colors, pronounced by many the finest strain produced yet. This variety produces few seeds and is very scarce. Price, per lb. \$4.00, ½ oz. \$5.00, ¼ oz. \$4.50, 1/8 oz. \$5.00, 1/16 oz. \$2.00.

CASSIERS, 3 and 5 blotched Giant, extra fine. Per 1/4 ounce \$5.00, 1/8 oz. \$2.00.

FAUST, King of the Blacks, fine for bedding. Per ounce \$1.00.

White and Yellow, fine strain. Per ounce 75c.
Emperor William (blue). Lord Beauchamp (purple). Per oz. \$1. Fine German mixed, lb. \$5 oz. 50c.
Improved, large flowering mixed, lb. \$10, ½ oz. \$1.

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Correspondence solicited. Catalogue ready in Sept.

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S. Pansies, Carnations and Violets a specialty. 1500 Cherry plants, Boston Market, Henderson's Half Dwarf, \$1.00 per 1000.

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in 2 1/2-inch pots, two to three leaves, and until August 15th, we offer them to the trade at \$10 per 100; \$90 per 1000.

This is a good chance for florists to stock up for winter trade, with strong, thrifty plants at a low price.

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Many thousands of Arecas.
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CLEMATIS, ROSES, VINES,

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ROSES, in pots for forcing,
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Over 300,000 Super. Feet of Glass.

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Twenty good varieties of ferns in mixture, from 2-inch pots, \$5 per 100. For winter flowering, Eucharis Amazonica, 20 bulbs in an 8-inch pot, \$1. Gardenia Florida, Allamanda Schottii and Clerodendron Balfouri, from 5-inch pots, \$3 per doz. CUT ROSES—in mixture, \$3 per 100. Lygodium scandens, fine strings, 20c. each.

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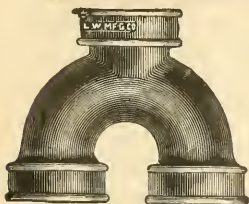
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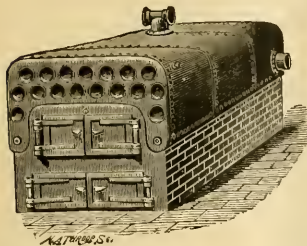
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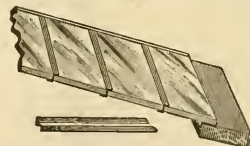
2 1/2-inch.	per 100,	\$.50	7-inch.	per 100,	\$ 3.50
3 "	"	.60	8 "	"	5.00
3 1/4 "	"	.70	9 "	"	6.50
4 "	"	.88	10 "	"	8.00
5 "	"	1.38	11 "	"	12.00
6 "	"	2.20	12 "	"	20.00

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All pots shipped at fifth class freight rates. All kinds of wares made to order. Terms cash. Address
HILFINGER BROS, Fort Edward, N. Y.

YOU ARE CORDIALLY INVITED to visit the exhibit of our Furman boilers which we shall make at the approaching Buffalo Convention, Aug. 20, 21 and 22.
HERENDEN MFG CO, Geneva, N. Y.

IMPROVED GLAZING

J. M. Gasser's Patent Zinc Joints,



For putting glass without laps; makes it air and water tight; saves fuel and glass. No breakage from frost. Also the best improved fuel oil Burners for steam boilers. Send for sample and price list.

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Index to Advertisers.

Advertising Rates, etc.	12	Low Hugh & Co.	21
Aemie Water Heater.	32	McAllister, F. E.	17
Aldine Printing Wks.	22	McCarthy, N. F. & Co.	13
Allen, W. S.	13	McFarland J. Horace	13
Backhouse Jas & Son.	19	Maples Bros.	28
Bailey F. A.	19	Marc Gabriel.	11
Barneget Momm & Post	19	Mathews, Wm.	20
Co.	31	Mead A.	11
Bayersdorfer M & Co	22	Merrick, A. V.	28
Beard G.	21	Michel Plant & Seed Co	17
Benz Albert.	23	Miller, Geo. W.	10
Berger, H. H. & Co.	17	Miller Jas.	29
Bishop W. R.	21	Mitchell Chas L.	13
Bianc A.	21	Moon Saml C.	10
Book Theo.	16	Moor Polman	17
Book Wm A.	16	Morgan A. W.	10
Boston & Lockport	16	Mother John.	23
Clark	17	Mullen Geo.	20
Brace L. B.	18	Nann & Neuner.	16
Brackenridge & Co.	20	Nelson Harv.	16
Brown R. S.	18	Oelschig A. C.	21
Burr Chas L.	16	Otto H. W.	18
Burrow J. G.	16	Olmsted L. H.	18
Caldwell Geo W.	18	Pennoek Chas E.	13
Carmody J. D.	24	Perkins, J. N.	28
Cassell, J. C.	22	Peterson G.	16
Chase Benj. Jr.	18	Phila. Im. Design Co.	29
Cincinnati Florist Soc.	30	Pierce Butler & Pierce	23
Connolly Jno J.	15	Richards, Mauds.	16
Cox Thos A & Co.	15	Plenty, Josephus.	23
Curwen John Jr.	15	Quaker City Mch. Wks.	23
Cutler Geo C.	10	Reed & Keller.	21
Detroit Flower Pw.	10	Richard Jos.	20
Manufactory.	17	Richers F. A. & Sohne	21
De Veer J. A.	17	Rimband Benj.	17
DeVing, Peter.	20	Roemer Fred.	20
Diez, John L. & Co.	21	Roiker, A. & Sons.	15
Dillon, J. L.	13	Ross & Millard.	15
Dreger, H. A.	19	Rupp Jno F.	28
Elgin Rose Co.	19	Russell F. & Co.	16
Fillranger & Barry.	19	Sandford C. J.	16
Expanded Metal Co.	23	Schofield D. C.	20
Farmers Fert. Co.	18	Schulz Jacob.	19
Basnett, F. E. & Bro.	16	Scollay, John A.	24
Faxon M. B.	16	Shaw Jos.	10
Fisher Bros & Co.	16	Shelmitte W. R.	10
Kisk Chas H.	15	Shepherd Mrs T. R.	29
Gardner Jno & Co.	20	Sheridan W. F.	13
Gasser J. M.	23	Siebert Chas E.	16
Gear Fred.	16	Siebrecht & Wadley.	20
Germond & Cosgrove.	28	Situations, Wants.	10
Giddings, A.	17	Smith David.	24
Greene W. W. Son &	16	Smiths Powell & Lamb	16
Sayles.	17	Spaulding T. H.	19
Griffith, Jas.	22	Spooner, Wm.	11
Griffith, N. S.	18	Stearns A. Lumber Co.	22
Haene Adolph D.	18	Steffens N.	28
Hales, H. W.	19	Stewart, Wm. A. & Son.	15
Hallock, V. H. & Son.	19	Stillwell Chas R.	18
Hammond, Benj.	21	Storrs & Harrison Co.	16
Hammond & Hunter.	13	Stratton & Storm.	22
Harvey J. H.	20	Strauss, C. & Co.	11
Henderson Peter & Co.	29	Suder N.	22
Henderson Mfg Co.	15	Taylor John H.	11
16 17 22 23 24 29 30.	31	Teas E. V.	14
Herr, Albert M.	21	Thompson Mrs J. R.	15
Hilfinger Bros.	25	Tritscher M. & Son.	16
Hippard E.	23	Van der Schoot R. & Son	16
Hitchings & Co.	24	Vaughan, J. C.	19
Hooker, H. M.	22	Vreeland Bros.	15
Horn, Edw C.	15	Waterer H. L.	31
Horticultural Times.	15	Weathered, Thos. W.	24
Hoyt B. D.	20	Weich Bros.	13
Hudson John M.	13	West shore R. R.	15
Hughes E. G.	22	Whallin Pottery Co.	15
Hulsebosch A.	15	White John.	11
Ives, J. H.	20	Wilks & Mfg.	21
Jennings E. B.	20	Williams H. W. & Son.	15
Joosten C. H.	17	Wisconsin Flower Ex.	16
Jordan Floral Co.	19	Withold Geo.	29
Kennellot Bros.	15	Wolf, L. Mfg. Co.	22
Krauer I. N. & Son.	19	Wood Bros.	11
Krick, W. C.	13	Yong, Thos. Jr.	15
La Roche & Stahl.	13	Zirngel D.	20
Lockland Lumber Co.	22		

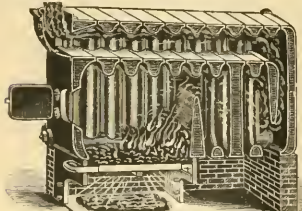
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Superior Hot Water Boilers.

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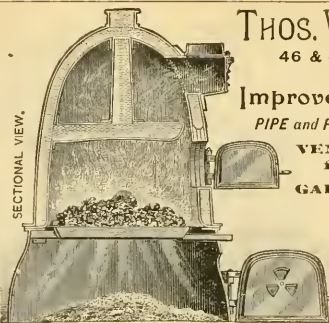
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PIPE and PIPE FITTINGS, for heating Greenhouses, &c.VENTILATING APPARATUS,
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and WIRE for Trellis Work.

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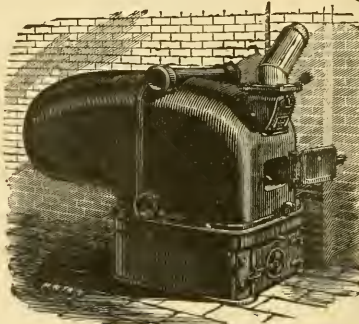
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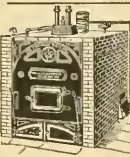
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Smith's Improved Ventilating Apparatus, for opening and closing Ventilating Sash, on roof or sides of Greenhouses and Graperies.

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86 Beverly Street, BOSTON, MASS.



Reduce your Coal Bills

THE FURMAN STEAM HEATER
ESPECIALLY ADAPTED FOR
WARMING GREENHOUSES.

Gives a most uniform heat night and day. Can be run with less attention, and a SAVING of fully 20 to 25 Per Cent. in Fuel over any other method. Burns HARD or SOFT COAL. Endorsed by leading Florists. Send for full Illustrated Catalogue, showing how to pipe and heat a house by steam.

Address HERENDEN MANUFACTURING CO., GENEVA, N. Y.

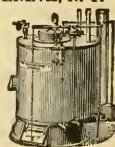
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and MEDALS have been given to the FURMAN BOILERS at all the Large Expositions of this Country. Made in two styles, as MAGAZINE BURNERS and SURFACE BURNERS, and in two Forms, both PORTABLE and BRICK-SET.

18 SIZES FOR STEAM. 16 SIZES FOR WATER.

Send for our new books showing what prominent florists say about our boilers. Address

THE HERENDEN MFG CO., GENEVA, N. Y.



THE AMERICAN FLORIST

CONVENTION SUPPLEMENT.

Vol. V.

CHICAGO AND NEW YORK, AUGUST 15, 1889.

Supplement to No. 97.

Buffalo Hotels.

The local committee has secured rates as follows from Buffalo Hotels:

Hotel.	Can accom- modate.	Rate. Am. plan
Tift House, Headquarters, Tift House Block.	150-175	\$3.00
Iroquois, Eagle and Main Sts.	300	3.50-4.00
The Niagara, Porter Ave. and Seventh St. 120	120	3.50-4.50
The Genesee, cor. Genesee and Main Sts. 125-150	125-150	3.00-3.50
Mansion House, cor. Exchange and Main Sts. 75	75	3.00
Stafford House, Washington and Carroll Sts. 50-75	50-75	2.00
Tucker's Hotel, Exchange and Michigan Sts. 30-40	30-40	2.00
United States Hotel, cor. Terrace and Pearl Sts. 75-100	75-100	1.50-2.00
Eagle House, Washington and Eagle Sts. 40-50	40-50	2.00
Gruener's Hotel (German), 20 East Huron St.	40-50	2.00
Southern Hotel, Michigan and Seneca Sts. 40-50	40-50	1.50
St. John's House, 39 East Swan St.	40	1.50
Tremont House, Washington and Seneca Sts. 60	60	1.50
Brunswick Hotel, Exchange and Wash. Sts. 50	50	1.50
Fillmore House, Michigan and Carroll Sts. 40	40	1.50

Applications for rooms may be made direct to the hotels, or to Thomas Clayton, chairman hotel committee, 90 Richmond avenue, Buffalo, N. Y.

DON'T FAIL to register with the Buffalo club.

DELAWARE AVENUE is one of the most beautiful avenues in the country.

DON'T FORGET to have Secretary Stewart countersign your R. R. certificate.

SEE OUR MAP showing all the hotels at which rates have been secured, depots etc.

IT IS a peculiar fact that Mr. Long is rather under than above the average height.

ATTEND the meeting to organize a National Chrysanthemum Society Tuesday afternoon.

BUFFALO BILL can be found at 479 Main street. His wild west show will be at the ball game.

UP TO August 7 2,000 square feet of space in the exhibition hall had been engaged and allotted.

THE MEETINGS will be held in the "Concert Hall," Music Hall Building, Main street. See map.

THE AMERICAN FLORIST headquarters will be at the Tift House, room 172, adjoining society headquarters.

A BOWLING TOURNAMENT has been arranged for. This and the ball game will undoubtedly furnish much sport.

THE BASE BALL GAME promises much sport. The local nine has been in steady practice and it behooves the visitors to select their best players.



MAP OF A PART OF BUFFALO, N. Y.

- 1-Convention Hall.
- 2-Tift House.
- 3-Iroquois.
- 4-The Niagara.
- 5-The Genesee.
- 6-Mansion House.
- 7-Stafford House.
- 8-Tucker's Hotel.
- 9-United States Hotel.
- 10-Eagle House.
- 11-Southern Hotel.
- 12-St. John's House.
- 13-Tremont House.
- 14-Brunswick Hotel.
- 15-Fillmore House.
- 16-Gruener's Hotel.
- A-UNION DEPOT.
- N. Y. C. & H. R.; Mich. Cent.; West Shore; L. S. & M. S.; Grand Trunk; Buff. Roch. & Pitts.
- B-ETHE DEPOT.
- N. Y. L. Erie & W.; Lehigh Valley; N. Y. C. & St. L. (Nickel Plate); Grand Trunk.
- C-DEL. LACK. & W. DEPOT.
- D-W. N. Y. & PENN. DEPOT.

MEMBERS arriving at Buffalo in whatever numbers will be met at the depot if they will notify T. Clayton, 90 Richmond avenue, chairman of the reception committee.

A NATIONAL MICROSCOPICAL CONVENTION will be in session the same dates as that of the S. A. F. This should prove an additional attraction to any interested in that science. They are arranging for a public exhibition or reception on Thursday evening.

THE BUFFALO FLORISTS' CLUB has a room at the Tift House, adjoining the headquarters of the S. A. F. They desire every one in attendance at the conven-

tion to register with them. Members of the Buffalo Club will be known by a white badge bearing crest of a buffalo head.

VICE PRESIDENT W. J. PALMER has a simple device for fumigating, which does its work most effectually and costs only about 25 cents to make. He will explain the method of using it at the meeting Tuesday evening. Any florist can get one made after seeing the sample, which will be on exhibition. The device is not patented.

THE NATIONAL MICROSCOPICAL SOCIETY, which will give a public reception and exhibition on Thursday evening at the Buffalo Library Building, has fra-

ternally extended an invitation to the S. A. F. to attend. The rooms of the Historical Society and those of the Society of Natural Sciences will also be thrown open on that evening.

THE EXCURSION TRAIN to Niagara Falls will leave at 8:30 a. m. sharp, Friday from Union Depot. The run to the falls will be made in 45 minutes, giving from four to five hours at the falls, arriving again at Buffalo at 2 p. m. for the collation tendered by the Buffalo Florists' Club. This will be followed by a carriage drive through the parks and residence streets, starting at 4:30 p. m. and finishing by 7:30 p. m.

PROGRAMME.

TUESDAY, AUG. 20, 1899.

FIRST DAY—MORNING SESSION, 10 O'CLOCK.

Address of welcome, Hon. Philip Becker, Mayor of Buffalo—Response, Mr. A. P. Calder, Boston—President May's Address—Reports of Secretary and Treasurer—Reports of Standing Committees—Reports of Special Committees—Miscellaneous Business—Discussion of President's Address.

FIRST DAY—EVENING SESSION, 7 O'CLOCK.
ESSAY—*Roses*: W. C. BARRY, Rochester, N. Y.

Discussion.

QUESTION BOX.

ON ROSES.

What varieties of roses of recent introduction are specially useful to the florist? Reply by E. G. Hill, Richmond, Ind.

Will the Rose-bug commonly found in greenhouses survive freezing? Reply by Chas. P. Anderson, Flushing, N. Y.

Southern green Rose Bushes. A. C. Oelschig, Savannah, Ga.

What is the best way to keep Green-fly from Roses without fumigating?

Where does the Rose-bug deposit its eggs?

Perles and other Roses on the Banksia and similar stocks—are they preferable to those on own roots?

MISCELLANEOUS.

The influence of soil on Carnations—what is the effect of transplanting from light to heavy soil, or vice versa? Reply by Wm. Swayne, Kennett Square, Pa.

What are the best varieties of Azaleas for Christmas blooming?

What is the best method of raising fine Mignonette in winter?

Can any of the following plants be profitably grown in winter for cut flowers: *Rogiera cordata*, *Rondeletia speciosa*, *Hemerocallis*, *Ranunculus*, *Anemone*, *Aster*?

Winter blooming Heaths.

What is to be recommended as new or promising for the cut flower trade?

WEDNESDAY, AUG. 21, 1899.

SECOND DAY—MORNING SESSION, 9:30.

Selection of place of meeting for 1899—Nomination of officers for ensuing year.

ESSAY—*Elevation of our Business*, ROBERT CRAIG, Philadelphia, Pa.

Discussion.

ESSAY—*Education*, H. H. BATTLES, Philadelphia, Pa.

Discussion.

SECOND DAY—EVENING SESSION, 7 O'CLOCK.

ESSAY—*The Establishment of an Experimental Garden*, JOHN THORPE, Pearl River, N. Y.

Discussion.

QUESTION BOX.

What are the necessary qualifications for properly filling the following situations: 1. Grower in commercial greenhouses. 2. Head gardener on a private estate. 3. Florist in a public institution. 4. Superintendent of public parks and grounds. Reply by Peter Henderson.

Is the sale of flowers in the streets of large cities an injury to the general business of the stores? Reply by F. M. Huntsman.

Is the practice of advancing prices of cut flowers on special occasions injurious to the trade. Reply by J. C. Vaughan.

What per cent over cost should be a general basis for prices in conducting a retail cut flower trade. Reply by John Westcott.

How can local clubs and the national society best work together to promote their common interests? Reply by J. D. Reynolds.

Can the general florist engage to advantage in the hardy plant and shrub business for lawn decoration? Reply by Wm. Scott.

Palms, ferns and decorative plants, their value in floral decorations. Reply by M. H. Norton.

It what way can a florist most successfully start in business in a country town?

What hardy and half-hardy plants may be used for decorative purposes in severe weather?

Can the Society do anything to regulate the prices of bedding plants throughout the country?

THURSDAY, AUG. 22, 1899.

THIRD DAY—MORNING SESSION, 9:30.

Election of officers.

ESSAY—*Useful Summer Blooming Flowers*, A. E. WHITTLE, Albany, N. Y.

Discussion.

ESSAY—*Horticultural Exhibitions*, EDWIN LONSDALE, Chestnut Hill, Pa.

Discussion.

THIRD DAY—EVENING SESSION, 7 O'CLOCK.

ESSAY—*Landscape Gardening*, WM. McMILLAN, Buffalo, N. Y.

Discussion.

ESSAY—*Orchids, The Natural Habitat of the Leading Varieties*, J. FORSTERMANN, Summit, N. J.

QUESTION BOX.

What is the best method of caring for wrought iron boilers when not in use? Reply by M. A. Hunt, Terre Haute, Ind.

What are the results of experiments with water gas? Reply by J. T. Temple, Davenport, Ia.

What are the advantages of the electric light?

What is the experience in the use of petroleum?

Best method of packing plants for express?

Materials for flues?

How to prevent waste in fuel?

FRIDAY, AUG. 23, 1899.

FOURTH DAY.

The fourth day will be devoted to social enjoyment. The great feature of the day will be an excursion to Niagara Falls, 23 miles distant from Buffalo. The Buffalo Florist Club will arrange for an excursion train, and procure lowest rates for trip and incidentals at the Falls. On return to the city a collation will be tendered the Society by the Buffalo Club. A large hall, capable of seating the whole company at once, will be provided. A base ball game and other diversions will follow.

Leaves of Advice From a Limb of the Law.

(For Young Florists.)

VII.

Take care! Take care! Those pots are of the earth, earthy. You've broken three or four already.

Yours are they? Suppose they are. That's no reason why you should smash them into pieces. Besides they are not yours absolutely. Your creditors have an interest in them.

No man can own a thing absolutely. Somebody else will be able to prove a qualified ownership in it. No, decidedly not; a man's house is not and never was his castle. He must open the door when the law knocks; he must pay his taxes or move out; he must maintain no nuisance, commit no unlawful act therein. The state may decree its removal if the ground be needed for the public good—of course upon the payment of a fair price. You may not store explosives therein.

By the way, speaking of explosives, why are you in such an explosive condition of mind this morning? Ah, indeed; so your "fool boy" as you call him, pulled down a pile of heavy flower pots on himself and broke his leg, did he? But why should that put you into such a fit of passion? It wasn't your leg. I should think you would be in a calm and sympathetic condition of mind.

Oh ho! Sent a lawyer to you has he? Wants damages does he? Claims those heavy pots were piled up on a thin, weak self does he?

Not a cent, hey? Not a —, take care, take care, be calm; bear in mind that it wasn't your leg. Don't forget that.

My advice. Well, how am I to advise you as long as you keep up that disagreeable pounding. That's it, unbutton your waistcoat, loosen your collar, take off your hat and draw a deep breath. Now, let's see how the law stands: If that self can be proven to have been weak and insecure, my advice is: Go to the boy's house, assume all the expenses of doctor and nurse; say a kind word to the boy and promise to make it all right when he gets well.

The law is firm on this point. "It is the duty of an employer to know all the defects existing in the instrumentalities of his business." Mark the language well. "All the defects." That is but one qualifying clause, and there is "which human foresight can remedy and prevent." The law expects no man to pierce the dim future and make ready for a shower of fire by covering his roof with an asbestos blanket. If a man's business be extra hazardous, which yours is not, it is his duty when employing a workman to set forth in the plainest and most striking manner all the dangers to which the work will expose him and to instruct him how to reduce that danger to a minimum. Especially must he warn his employee against all hidden or latent dangers.

For instance, it is your duty to warn your workmen against touching, handling or carrying to their lips any poisonous plant or plants which may be growing in your hothouses; or if you make use of any poisonous substance such as corrosive sublimate, Paris green, etc., to destroy vermin, it becomes incumbent upon you to warn your workmen in the most solemn and impressive manner as to the danger of using such substances in any way or manner except as directed by you.

The younger the employee the more careful must you be in your watchfulness. In fact, if under the age of 14 the law would be slow to excuse you, no matter



MUSIC HALL BUILDING, BUFFALO, IN WHICH THE CONVENTION WILL BE HELD

how solemnly and frequently you warned a boy to be careful in using such a poisonous substance.

Now when a defect does exist such as this weak shelf, it becomes the duty of the employer to remedy the defect at once or take the consequences. It will not do to plead that this or that interfered to prevent you from making the necessary repairs. Better be silent than advance such a wretched excuse.

You say the boy knew that the shelf was overloaded. This will not excuse you. It was necessary for him to pass and repass that very spot twenty times a day. No doubt you are right. No doubt as you say he lost his balance and without thinking reached up and caught hold of the shelf. The extra weight did the business. The shelf gave away and precipitated the whole pile of heavy pots down on him.

No, there is no "contributory negligence." He had a right to suppose that a few pounds more would work no damage, and had he set a heavy pail on the shelf it would not have been "contributory negligence." He had a right to assume that so long as there was room on that shelf it was not overloaded. An employee is only bound to know what he ought to know. You are not to assume that he will test the apparatus in your trade, that he will pause in his work and make experiments as to the trustworthiness of the instrumentalities of your business. Nothing of the sort. That would be expecting the intelligence of a philosopher in the commonest mortal.

Give you an example of "contributory negligence?" Good. I will do so. I like to have you ask questions. It shows that your mind is not in the same condition as those morning glories are at this moment—asleep. Well, let us suppose that you provide a tool house with the proper hooks, etc. for edged tools, but that your boy instead of taking the

trouble to hang a sickle up in the tool house hangs it up near the door of this greenhouse and that you coming in in the dark and reaching up for something knock the sickle down and it strikes the boy on the head inflicting a deep wound. He could recover nothing. He was the author of his own misfortune. He contributed toward the accident. It would not have happened without his negligence.

But bear in mind that you as employer are not called upon to assume the ordinary risks of a business. A workman who falls sick from exposure to heat or cold, who contracts a fever while assisting in opening or closing a sewer, who crushes a finger while moving a heavy box etc. has no redress.

These "ordinary risks" sometimes become extraordinary. For instance, when a man accepts work in a powder mill, enters the employment of a looking-glass maker or metal polisher, etc.

Now, of one thing you must disabuse your mind. Don't get an idea that because this person who has been injured by your negligence is a poor boy to whom you paid a dollar or so per week, that the law will in any way be inclined to give him less damages. He will be entitled to as much consideration as though he were the son of your richest customer.

Yes, contracts have been made and upheld by the courts by means of which employers have bound their workmen in case of accidents to make no claim for damages. Of course there must be a consideration. The law looks with distrust upon such contracts, for a man is often forced into signing one in order to get work to keep body and soul together.

Certainly such a contract would not shield a man from gross neglect of duty in keeping his machinery in repair etc. Anyway, you could not make such a contract with a boy—a minor. The law would disregard such an attempt. Until

a person reaches his twenty-first year he will not be allowed to sign away any of his civil rights, no matter how large the consideration.

That's right, go and see how the boy is getting along. Settle the bills for doctor services, etc., but don't pay any damages unless I am with you.

UNCLE BLACKSTONE.

Cost of Production.

Considerable of late has been said in the *FLORIST* about the cost of raising plants for market, some of the estimates given being so low that judging from the credit side of our ledger we about conclude that we put more labor into the growing of plants for market than is really necessary, and that our present system of plant growing must be deficient somewhere.

For the last five years I have kept a correct account of the actual cost of everything connected with my florist business, and can tell exactly how much it costs for labor, fuel, pots, manure, repairing and tools necessary for running the same, also the prices at which the different kinds of plants have averaged when put on the market. Of course my business is comparatively small, plants being raised mostly for the local retail trade, which demands flowering plants to be in bloom and foliage plants to be larger than what are raised for a shipping trade.

My sales of such plants for the last two years have run between 40,000 and 45,000 and in order to get this number fit for market I have to raise from 5,000 to 10,000 more especially of flowering kinds. Geraniums, fuchsias, heliotropes, ageratum and similar flowering plants are grown in 3, 3½ and 4-inch pots and retail at from \$1 to \$1.25 per dozen. Verbenas, coleus, alternantheras and basket plants are grown in 2½-inch pots and retail at 50 cents per doz.

In making my estimate of what these plants cost me I have put my land at its lowest market value, also cost of buildings, and charge on the same interest and taxes besides the expenses of maintaining the same; and as I grow the different kinds of plants in separate houses and most of the houses being heated separately, gives me a good chance for knowing what each kind costs.

Geraniums and fuchsias in 4-inch pots in bloom costs on an average 4½ cents each, in 3-inch 4 cents; heliotrope and ageratum in 4-inch 3½ cents, in 3-inch 3 cents, also in bloom; verbenas, coleus, ageratum and the general run of basket plants cost about 2 cents each.

Where plants are raised by the 100,000 and sold when about well rooted in large quantities the cost of raising is small, but where every plant has to be grown as an individual specimen and in full flower they require more space and require it longer than such as are raised for the wholesale and mailing trade. It is this occupying of space so long that increases their cost. Of course since we have adopted the hotbed for growing plants, as early in the spring as possible, has decreased the cost considerably, as all kinds of flowering plants come into bloom in a shorter time in a hotbed than in a greenhouse and also retain a healthier appearance. As we raise most of our verbenas now from seed the cost of raising plants fit for the market has also been considerably lowered, they do not occupy the greenhouse space so long, nor do we have any loss from rust.

Youngstown, O. M. MILTON.



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"Ready packed crates" are our specialty. The "CASH CRATE" for cash with order, and the "CREDIT CRATE" when paid in fifteen days. Notice the number in each crate. Crates of assorted sizes to order 25c. extra. We fill orders instantly now. Freight rates are obtained by us extra low to all points West and South. Send for frt. rate and prices of hand-made 7 inch to 16 inch

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Size.	Price of 1000.	No. in Crate.	Credit Crte.	Cash Crte.	Size.	Price of 1000.	No. in Crate.	Credit Crte.	Cash Crte.
1 1/4 in.	\$2 88	4000	\$12 00	\$11 50	3 1/2 in.	\$7 50	770	\$6 00	\$5 75
2 "	3 32	3168	11 00	10 50	4 "	9 25	570	5 50	5 25
2 1/4 "	3 75	2400	9 50	9 00	5 "	15 50	340	5 50	5 25
2 1/2 "	4 25	1890	8 50	8 00	6 "	25 00	168	4 50	4 25
3 "	5 25	1200	6 75	6 30					

Crates of pots given away at Convention. See me there and get a sample with prices and freight.

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MANUFACTURERS OF STANDARD POTS

Which conform in every particular to the requirements of the Committee of S. A. F.

Price list and sample of 1 3/4, 2, 2 1/4 or 2 1/2-in. free by mail.

MILWAUKEE, July 23rd, 1889.

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GENTS:—Since we determined to use Standard Pots, we have examined them all, and consider your pots better than any other. Truly yours, C. B. WHITNALL & CO.

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IMPORTER OF

Bulbs, Azalea Indica, Dracænas, Palms

AND OTHER ORNAMENTAL PLANTS.

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ESTABLISHED 1866.



ROSES.

Perle, Niphetos, Brides and La France 4-in. . . \$10.10
Sour d'un Ami and La France, from 3 in. pots. 5 00
Good, clean, healthy plants. Liberal discount on large orders.

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The largest, most perfect, and finest colored pansies grown. Be sure to sow some of this seed if you wish to have the very choicest pansies.

Extra, Mixed, per trade packet 25c.

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Have again secured all the Prizes at the Boston Exhibitions of March and May last

New Crop Seed of those Standard Varieties after July 1st.

Trade packages of either strain at \$1.00 each. Packages contain 1,500 and 600 seeds respectively.

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EXOCHORDA GRANDIFLORA.

Per 100
Seedlings, 6 to 10 inches, nice plants
for mailing. \$ 5 00
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Transplanted, branched, 2 to 3 ft. . . 20 00

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Elaeagnus argentea—Silver thorn.

Seedlings. per 1000, \$10 00
Per 100
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Wistaria Chinensis, 3 yr strong vines 12 00
Seedlings, 6 to 12 inches, per 1000, 15 00
First selection, fit for grafting, 1/2 to 3/4-inch caliper. . . . per 100, 3 00

Per 100
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" seedlings, 2 yrs. transplanted 4 00

Paper Shell Hickory or Shellbark, from choice seed, 6 to 12 in. 5 00

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Seedlings. per 1000, \$10 00

Send for wholesale price list of general assortment of ornamental trees and shrubs.

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Morrisville, Bucks Co., Pa.

Orders now taken for Fall and Spring Delivery
of the beautiful Decorative Palm

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CYCAS REVOLUTA STEMS OF THE

TRUE LONG-LEAVED VARIETY,

The only one valuable for florists. Fine shaped
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JAPANESE MAPLES in 20 distinct vars.

MAPLE SEEDLINGS for grafting.

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NOVELTIES in Tree Paeonias.

HERBACEOUS Paeonias.

Iris Kempferi, Iris Stylosa, Hiacina.

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I want to have a chat
with you at the
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DRY BULBS, Aug., Sept., Oct., strong,	\$5.00	\$45.00
SMILAX—New Crop.....	per 100, \$10.00	20.00
CANNA EHEMANNI at all seasons,		
very strong roots.....	4.50	40.00
Good roots.....	3.00	25.00
Send for Trade List.		

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Seed and Bulb Grower, VENTURA, CAL.

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Lilium Candidum, good flowering bulbs
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hibit of our Furman boilers which we shall
make at the approaching Buffalo Convention,
Aug. 20, 21 and 22.

HERENDEN MFG Co., Geneva, N. Y.

V A U G H A N ' S B U L B S

See our EXHIBIT at Buffalo.

FREESIAS. These we have been shipping since June 20, and can
still supply first class stock.

LILIUM HARRISII. First class bulbs in all grades now ready.
Let us have your orders.

ROMAN HYACINTHS. Our first shipment is just ready. Romans
are not plenty this season. Order early.

L. CANDIDUM. These we expect by August 25, and the English
grown stock about September 20.

DUTCH BULBS. Will be ready about September 15-20 in full
assortment. Order now.

CALLA BULBS. Fine stock, California grown. Ready about
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LILY OF THE VALLEY. Will arrive in November. We are mak-
ing special rates on best Hamburg stock.

PRIMULA AND CINERARIA. Finest strains. Orders booked with
our Agent at Buffalo will be mailed
at once.

PANSY SEED. VAUGHAN'S "INTERNATIONAL" NEW CROP
SEED. This you can buy at our exhibition stand
at Buffalo. IT IS UNEQUALED.

FLORISTS' SUPPLIES. We are headquarters on everything of this
class and make bottom prices.

HOLLY AND GREEN. Book orders with our Agents at the Buffalo
meeting and you will get it.

Ask for one of our Illustrated Catalogues and take it home with you.

VAUGHAN'S BULBS.

WE HAVE A FEW THOUSAND OF

Lilium Harrisii—Easter Lily
STILL LEFT.

Send 25 cents for samples of our three sizes and list of special
prices by 100 or 1000, for immediate delivery.

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35 and 37 Cortlandt Street, NEW YORK.

CYPRESS SASH BARS and LUMBER.

MR. A. M. STEARNS will represent us, and will quote
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Please Examine Samples on Exhibition.

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Competent judges acknowledge our **INTERNATIONAL PRIZE PANSIES** to be unsurpassed in **SUBSTANCE, SIZE, FORM, and COLOR.** If you must have something better than your neighbor, these are what you want.

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SAMPLE PACKET, 25 CENTS.

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FRENCH STAINED. Trade Packet, 50c.

GERMAN (FINE MIXED). Per ounce, 75 cents.

Per ounce, \$1.50.

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James' & Wetherill's
CINERARIAS.
25 cents per packet.

**CARDINER'S
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**CHATER'S
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Choicest Colors, 25c. pkt.

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THE GREAT ROSE GROWERS OF LONG ISLAND SPEAK.

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Yours truly

CHAS. P. ANDERSON,

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WE WILL SEND SAMPLES OF HAMMOND'S GRAPE DUST FREE IF APPLICANTS WILL PAY CARRIAGE.

HAMMOND'S SLUG SHOT WORKS, FISHKILL-ON-HUDSON, N. Y. SOLD BY SEEDSMEN

THRIP JUICE

LIQUID INSECTICIDE KILLS SCALE, LICE, &c. Send 20c. in stamps for 10 gallons.

SLUG SHOT

KILLS CATERPILLARS ON ROSES AND OTHER INSECTS.

"Sold by the Seedsmen of America."

For sample, address *Fishkill-on-Hudson, N. Y.*

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We have 10,000 plants in fine condition to dispose of at reasonable rates.

Also 5,000 to 8,000 **VIOLETS** for winter blooming.

Write for circular and prices.

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AVONDALE, Chester Co., PA.

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LARGEST SIZED BULBS.

For Price per 100, per 1000 or per 10,000.

Address **H. WATERER,**
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ROTTED PEAT, FIBROUS PEAT AND PACKING MOSS,
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Their habits, and how to catch them. A BOOK FREE.

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Foliage and other ornamental of any kinds.

Hardy Plants, by the acre, of all the leading kinds, such as *PEONIES*, *PHLOX*, *IRISES*, &c., also novelties of sterling merit.

Chrysanthemums. The finest and largest stock in the country, including the famous *MRS. ALPHEUS HARDY*.

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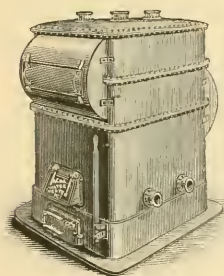
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Pitcher & Manda.

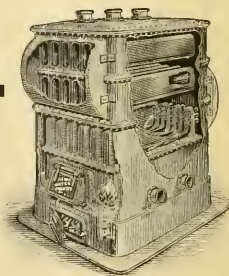
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Proficient engineers will tell you that the Acme has the largest direct heating surface ever put in a boiler. To get out this opinion take the cut of the Acme, and as many others as you can find, and have the matter thoroughly digested. There is no other boiler on the market with

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The fire in this boiler is staggered to utilize all the heat, but the heated water is permitted to escape quickly and freely.

The advertiser stands prepared to demonstrate that this boiler will heat more glass, and do it with less fuel and attention than by any other method known—Steam or Hot Water.

Do not forget your future Coal Bills and present interest, but write for particulars to

THE ACME WATER HEATERS,

60 to 70 Pine Street, **POUGHKEEPSIE, N. Y.**

THE AMERICAN FLORIST



America is "the Prow of the Vessel; there may be more comfort Amidships, but we are the first to touch Unknown Seas."

Vol. V.

CHICAGO AND NEW YORK, SEPTEMBER 1, 1889.

No. 98.

THE AMERICAN FLORIST

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SOCIETY OF AMERICAN FLORISTS.

J. M. JORDAN, St. Louis, Mo., president; M. H. NORTON, Boston, Mass., vice president; WM. J. STEWART, 67 Bromfield St., Boston, Mass., secretary; M. A. HUNT, Terre Haute, Ind., treasurer. The sixth annual meeting at Boston, Mass., August, 1890.

CONTENTS.

The Buffalo convention	33
A floral conceit (illustration)	35
Alyssum saxatile (with illustration)	37
The florists' protective association	37
Education	38
Phormium tenax Veitchianum (illustration)	39
Radolus	39
Arboretum notes V.	40
Older varieties of bedding geraniums	40
New dwarf cannas	41
Bambusa aurea (with illustration)	41
Roses—Keeping down mildew in summer	42
Roses—Rose Am. Beauty—Mme. Ferd. Jamie	42
Baltimore odds and ends	42
News notes	43
High express charges	44
The best geraniums	44
The catalogue disease	44
Geranium vagaries	44
Coming exhibitions	44
The seed trade	45
Sizes of pots	46
Double thick glass and hail	54

THE MANY COMPLIMENTS paid the FLORIST by our readers when renewing subscriptions are hereby acknowledged. While we do not think it wise to fill space by printing even a small selection of such we wish to say that the commendations are thoroughly appreciated and stimulate us to renewed efforts to please.

THE BUFFALO MEETING.—From its inception the Society of American Florists has been a chosen mark of the critics. At first they would hardly allow it a twelve month in which to die and be buried. When that period had passed, a rousing meeting closing the year, and a new prediction must be hazarded they saw swift decay in the rule of cliques and in other dimly outlined evils. But each succeeding yearly convention has overshadowed its predecessor. The fifth annual meeting just closed has proven no exception in its disappointment of this class. They said the end had been reached and all the changes rung, the florists had learned all the society could teach. What a further disappointment will it be then to know that the universal opinion is that in all that makes the

gathering of real benefit to the florist the last is still the best. The well arranged and complete programme, secured and carried out to the letter, the change to two daily sessions, the hall and hotel conveniences all combined to name it a model convention.

The Buffalo Convention.

It is pleasant to record that the fifth annual meeting of the Society of American Florists was more successful than any previous one. The essays were uniformly excellent; not one was of doubtful interest, and the discussions brought out many facts of great value. The convention hall was most satisfactory, being of just the right size and with excellent acoustic properties, which resulted in a larger and more constant attendance at the meetings and a freer discussion of the various essays.

The address of welcome by the Mayor of Buffalo was responded to by Mr. A. P. Calder, who said that the convention came to the city as a grand educator and exponent of advanced ideas, to teach and to learn. That the members came not only from the east, west and south, but from Canada as well, and called attention to the Stars and Stripes and Union Jack, which were draped together on the wall.

Then followed President J. N. May's address, the major part of which is given below.

"Ladies and Gentlemen:

For the fifth time we have met in convention for the express purpose of instruction and mutual intercourse, and it affords me very great pleasure to-day to say to you all that our society, though young, is growing and flourishing; long may it continue to do so, and each every year become more useful, more instructive and we do this in no way better than by advancing and elevating our business. To advance the best interest of all we must elevate our business and our standing in the commercial world; as workmen and artists we must show that we are able to keep abreast of the times, and the best possible opportunity for us to do so is to meet, as we are doing here to-day, and freely discuss all matters of interest; for there are collected here to-day many of the brightest minds of the country, whose ideas and views will be of immense value and help to us. No one can deny that wonderful strides have been made in the making up of floral designs alone, within the last ten years, and hundreds of other branches of our business have shown equal advancement. This is as it should be, and that we have advanced so rapidly in many of these things is very largely due to the Society of American Florists; but no one will deny that we have ample room for improvement left. Let us then all unite and try to carry on the good work, for to elevate our business is to

raise each and all of us on the plane of life. It may be well to consider for a moment what elevating our business means.

"It means, my fellow members, higher art, broader views, honorable and strict integrity in all our dealings, and I know of no better means of advancing our calling to this plane than the education of our young men, and our children also, who are to succeed us in this business; by the term education, I touch upon a very vital subject, and though following somewhat in the footsteps of my worthy predecessors, I cannot help referring to it again. To my mind, I think we, who are conducting the florist business of to-day, should very seriously consider it for the good of posterity. As we train the young men and boys now in our employ, so in a great measure will they conduct the future business. Therefore we should be careful to start right. If we conduct our business in a strictly honorable way, we shall do much to inculcate the same principle into the minds of our assistants; and if we use care and judgment in selecting the same, we shall accomplish much. To be a successful florist a young man should have a fair school education, and in addition he should have a natural taste and love for flowers. This combined with a good business training and strict application will produce the desired result in most instances. * * *

An establishment such as Mr. Hill advocated in his address to you last year would be of great help to the young student, but that would never make the successful florist alone. It is a deplorable fact that many who have graduated from similar institutions, although well versed in the theory of horticulture, are lamentably deficient in practical experience, and for some unaccountable reason, very few of them ever overcome the difficulty. There are some very honorable exceptions to this, but it's the exception, not the rule, so far as my observation has gone. * * * Theory is very pleasant to read, but if you wish to get at the root of a tree, you must take a spade and dig until you get it. And if you want to be a florist you must make up your mind to work hard, both with your hands and head. I do not by this wish to convey the idea that I am not in favor of a good training school, such as Mr. Hill advocated; on the contrary, I think it would be of great service to us. But there is another means by which we can all learn an immense amount of practical good, and that is by public exhibitions.

"These are not only educators of florists, but of the whole public at large, and as such we should do all we possibly can to advance and extend them; it may be they will not put money directly in our pockets, but they educate the public to love flowers and in the near future will bring its own reward. I would earnestly recommend this society to use its best endeavors to extend horticultural exhibi-

tions wherever possible, and also would suggest that the horticultural press of the country could do very much to stimulate and promote the same if more attention was paid to it. We as a body are very grateful to the same for the kindly way they have always treated us. And another of the important things we should encourage is new seedlings of home production. In our haste we do not give the time to this branch of the trade that we ought; though I am pleased to say we have several very promising things in this line raised here, and as our demand increases so will the desire to produce them without depending upon other countries for our novelties. Many of these we get from abroad are novelties only in name and not worth the paper it takes to describe them. This is particularly noticeable in many of the new roses sent to us from France of late years. Though there have been some grains among the chaff, very few indeed are suitable to our climate, and the sooner we turn our attention to this matter and go to work in earnest the better it will be for all concerned. A wide and interesting field opens itself for us, for although much has been done by men here to improve the carnation and some few other flowers with the best results, still a great many species have hardly been touched at all in the past, and to those we should now turn our attention and conduct it as we should our other business. This brings us to consider the method, or the lack of method, so general among us, in conducting our business. It is very much to be regretted that we should have to speak of this at all here, but with many of us who do a wholesale business, the fact is brought very plainly to our notice, and I think we, as a body, should take some means to protect the trade against those who buy goods, promising to pay at a certain time, and then after receiving the goods utterly ignore the fact that they owe anything to the party furnishing the same; and all such should be treated by this society as they deserve. There are many other loose practices in this business. For instance, having delivered goods to a man, the bill being due, we are very apt to get a reply to our request for payment of same, somewhat in this style: "I can not pay for the goods at present, as I have built another house since receiving the plants and it has taken all the money I had to do so." Such parties take it for granted they have a perfect right to use your money without even asking for the loan of it. Should you suggest they ought to pay interest for the use of your money, they would call you anything and everything except a fair dealing man. Yet in every business with which I am acquainted, except ours, any party allowing his bill to go unpaid over the date specified, expects to and does pay interest for all such time allowed, and no business can be expected to succeed where one party uses the capital of another without fair compensation. There are many other loose and irregular ways used by some in our calling, and all such abuses should be remedied by those who wish to be considered honorable men. The renaming of plants to suit the seller's purpose is, to say the least, a very objectionable practice, and it should be the business of this society to aid its committee on nomenclature all it possibly can, as the aim and object of the committee is to correct all such abuses. A flower needs only one name, and that should be its first, given to it by the raiser or introducer; and to any one buying an old variety at an advanced price, under a new

name, it is an injustice, and works against the best interests of the trade all over the country. * * * *

"In this and all other matters appertaining to our best interests, the various florist clubs and like organizations can be of great value to our profession in diffusing knowledge, if only treated in the right way; and we want also the co-operation of the retail florists for our interests in all matters are very closely allied, and I trust in the very near future we shall see them taking the same lively interest in our society as the growers now do, and we should use our best endeavors to protect the retail florist. From all over the country I have received letters complaining that the large wholesale growers are selling to private gentlemen at the same prices as to the retail dealers. This is undoubtedly a hardship, and to my mind an injustice and should, I think, have our careful consideration, and if possible a remedy should be found; for even where the dealer can buy at 25 or 30 per cent below the regular retail price, the heavy express charges he has to pay reduces his profits to a minimum.

"The Florists' Hail Association offers a good protection against its visitation and destructive work and deserves our earnest support. On the first of June last, Mr. Esler wrote me that there were over 1,200,000 feet insured, with a good reserve fund still on hand. This shows the thing has come to stay, and the increased interest on the part of the florists all over the country augurs well for its future prosperity. To those not already insured I would earnestly advise them to join it before the close of this convention, as the present time is everything to them."

Secretary Wm. J. Stewart's report showed that the past year had been a prosperous one for the society. He felt that the increase of the annual dues from \$2 to \$3 had proved a wise measure, as among the hundreds who had remitted their dues this year not one had criticised the change, and the number of members had not decreased.

Treasurer M. A. Hunt reported receipts for the year up to January 1 last of \$2018.23, and expenditures of \$1369.13, leaving 649.10 in the treasury, \$250 more than last year at same date. The expenditures since January 1 had been \$617.22, leaving a balance still in hand of \$31.88.

Mr. Peter Henderson as chairman of a committee, reported in regard to the duty on bulbs, recommending that an effort be made to have the present duty of 20 per cent abolished. A discussion which followed brought out the fact that tulip bulbs—which it has always been supposed could not be profitably grown in America—were being successfully grown in several states. The committee was continued and instructed to use their best efforts to have the duty abolished.

Mr. J. Horace McFarland submitted the report of the committee appointed last year to devise some plan whereby members might more readily become acquainted. It recommended the method now in use by the American Association of Nurserymen, which consists of a numbered badge and a "badge book" wherein is printed the name of the member opposite the number of his badge, arranged conveniently for reference. The report was accepted and the Executive Committee instructed to carry out the plan for the next convention.

Chairman J. D. Reynolds, of the committee on "Exaggeration of cuts in illustrated catalogues," recommended that catalogue men be invited to submit their illustrations to the Executive Committee

or a sub-committee with actual specimens of the object illustrated, and if found to be true to nature that a certificate to that effect be issued to him for use in his catalogue. He thought that in this way the honest man would receive an advantage which was due him. There was a lively discussion and the matter was finally referred to the Executive Committee with power to act upon the matter according to its best judgment.

Mr. W. C. Barry's essay on "Roses" was a very comprehensive and carefully prepared paper, and we shall probably give it in full in a later issue. In the discussion which followed Mr. Hill expressed the belief that in America the value of a new rose was too often decided by its adaptability for forcing. He thought that this was a mistake, as we needed roses for planting out as well as for forcing under glass. He related how the colors of old standard sorts of roses as seen growing in England varied from that of the same varieties when grown in America and attributed the marked difference to the effects of climate. While in England he had been favorably impressed with Brightness of Cheshunt and Ulrich Brunner.

In reply to the query as to what varieties of roses of recent introduction are specially useful to the florist, Mr. Hill mentioned Mme. Hoste and Duchess of Albany as promising sorts. He stated that the weak point of Mme. Hoste was its variable color, but that its freedom of bloom and sturdy growth would probably make it valuable. Duchess of Albany he considered an improved La France, a deeper pink in color and of stronger growth. He also expressed himself as very favorably impressed with Souvenir de Wootton. Regarding new varieties he hoped that American florists would raise their own and not be bothered with importing them. Then they could tie the plants and their sorrow into one bundle and bury them together.

Vice-President W. J. Palmer described a new method of keeping down the greenfly, which we shall illustrate and describe in an early issue.

In reply to the query as to whether Perles and other roses on Banksia and similar stocks were preferable to those on own roots Mr. Jas. D. Reynolds said he had most excellent results from Perles worked on the Banksia stock and considered it a grand good stock for the Perle.

Regarding the best way to raise fine mignonette in winter President May said that the main requisites to success were good soil, a dry atmosphere and common sense. He sowed seed from August 1 to October 1, or to have flowers by Christmas then before September 1. The seed was a select strain of Miles Hybrid Spiral and sown very thinly. The mignonette wants a deep cool bottom and he planted in solid beds. To produce large flower heads he disbudded all shoots below the flower spike. Should be grown cool.

Mr. A. Giddings in a written communication called attention to the value of the white aster as a winter flower. He believed that it would prove of considerable importance in helping out in winter when carnations were scarce. He had found that dwarf varieties took but little room. He had planted them among his roses near the glass and they had bloomed when only four inches high. He provided for a succession by replacing exhausted plants with others which had been held back for the purpose.

Boston, Mass., was selected as the city in which to hold the next convention and officers for the ensuing year were



A FLORAL CONCEIT; ARRANGED BY H. H. BATTLES

elected as follows: President, J. M. Jordan, St. Louis; Vice-President, M. H. Norton, Boston; Secretary, Wm. J. Stewart, Boston; Treasurer, M. A. Hunt, Terre Haute, Ind.

Mr. Robert Craig's essay on "The Elevation of Our Business" contained so much of general interest that we shall publish it entire in next issue, and Mr. Battles' essay on "Education" will be found in another column.

Mr. John Thorpe in a short paper told of the great value that a national experimental garden would be to the trade and the public at large and suggested his ideas as to the best manner of making an attempt to secure an adequate appropriation from Congress to carry out his plan. A committee was appointed to follow up Mr. Thorpe's suggestions.

Mr. J. C. Vaughan believed that while the practice of advancing the prices of cut flowers on special occasions was undoubtedly detrimental to the best interests of the trade, it was necessary to offset losses to growers during times of surplus, and such fluctuations would always exist. Mr. John Westcott considered 100 per cent over cost of the flowers as a proper price for the retailer to ask. This could not be made an iron clad rule and certainly not at the holidays, but it should average about that in order to make a profit after waste had been deducted.

Mr. Jas. D. Reynolds thought that the one word "Co-operation" answered the query as to how the local Florists' Clubs and the National Society could work together to promote their common interests. He presented a plan whereby the local clubs could give exhibitions under the guidance of the National Society and believed that co-operation in this way would accomplish a very desirable result.

Mr. Wm. Scott was convinced that the general florist in small cities and towns would find it to his advantage to add the

sale of hardy plants and shrubs to his business, but that in large cities where the business was largely divided into specialties it would not be so advantageous. "Can the society do anything to regulate the prices of bedding plants throughout the country?" was a query to which Mr. Peter Henderson replied with the one word, "No." Mr. J. D. Carmody described a method of killing grubs in the soil by heating the soil before placing in the benches. At first thought this seemed a tremendous job where a large quantity was used, but in discussion it was brought out that it could be done with great rapidity by piling the soil on steam pipes arranged for the purpose. Many who were at first incredulous finally expressed the belief that the plan was feasible. Mr. Charles Anderson had found no effective cure for the black spot on roses.

Mr. Edwin Lonsdale in his essay on horticultural exhibitions told of an exhibition at Germantown, near Philadelphia, at which competition was confined to amateurs—mostly people of very moderate means—among whom plants and seeds had been previously distributed, all plants and flowers exhibited being grown from them. He believed that great good had been accomplished in this way and recommended that the same plan be adopted in other cities. He thought that the daily press should devote more space to describing exhibitions, and in the discussion which followed it was held by several that managers of exhibitions should be careful to have some competent and impartial person devote his whole time to giving proper information to press representatives during the exhibition.

The essay on "Useful summer blooming flowers" by A. E. Whittle, will probably appear in full in these columns at an early date. Mr. J. M. Jordan

called attention to the fact that the season of blooming of many summer flowers could be prolonged by being careful to pick off all blooms whether needed or not, and thus prevent the plant from exhausting itself by perfecting seeds. In the case of dahlias he recommended that the points be nipped out, inducing free branching.

The committee on dishonest dealers reported a plan which after two sessions of discussion was adopted. The details will be found in another column.

The essay on Landscape Gardening by Wm. McMillan, superintendent of the Buffalo parks, was a most telling satire on the present craze for the artificial and abnormal in gardening. The following paragraph was received with long continued applause and laughter:

"The absurdity of the leading motive in carpet bedding may be found in listening to the kind of talk we often hear from ardent enthusiasts of the practice. A shallow amateur in such work who has not before seen the highest art in this line visits some notable display on some private estate or public park, and on his return regales his gaping friends with some such description as this: 'You can form no idea of the immense quantity of plants in such a garden. A 10-acre lot would be well filled if all were put together. The edging and ribbons if strung out on end would measure over a mile. They were of nearly every imaginable color you can find in the stores. The ring-streaked, speckled and spotted plants and those with all shades of bronze and gold were legion. They were set out with the most wonderful ingenuity into so many patterns that carpet bedding was no name for it. There were Turkish rugs, church windows, wheels within wheels, figures of animals, statuary, hieroglyphic writing, plain print, and emblematic symbols of all kinds in geometry and

astronomy! The first thing that struck my eye was a bright bed of fire red coleus, a circular mound, raised high up in the form of a half globe. That was a sunset when there is a thick haze on the horizon. Near by was a crescent in variegated alyssum. That was the silver moon. I could not tell whether she was in her last quarter or the first. The horns pointed to the north and were equally correct for either phase. Next came a circular bed that seemed a combination of both the others. One disk in very dark leaves overlapped a whitish crescent about two thirds. This was an eclipse. I could not at first tell whether it was the sun or the moon that was eclipsed. After a little study I got on to the gardener's trick. It was either or both, according to your pleasure or fancy. All around were lots of little stars and one or two small disks curiously belted and girded. Having seen pictures of the telescopic appearance of Jupiter and Saturn I at once divined the meaning. There was any number of figures of men and beasts and birds and fishes. A military officer in full uniform was very imposing. A prize fight in full tilt, and base ball players with clubs drawn looked dangerous. A boat race with four rowers pulling the oars was quite exciting. In statuary the finest design I saw was a copy of St. George killing the dragon. It was full of spirit and action. A little puff of wind now and again crossing the dragon's head made his jaws seem to open and shut quickly. The feathery stuff used for the tail of the steed actually whisked gently in the breeze. The brightest spot of all had a display of flags of all the leading nations. The tricolor, the Union Jack, and even the stars and stripes were easily imitated, but some of the others tried the highest art of the gardener. In the geometry section I was for a long while puzzled by a most intricate figure, the meaning of which I could not make out. At last I detected the faint outline of an arch spanning the whole. That gave me the cue. It was the tough problem in Euclid called the Asses' bridge. I remember how it puzzled me when at school, and it is equally hard to see through it in a flower bed."

He closed with a discussion of what is beautiful in floral decoration, in which he gave wide latitude to beauty as it appealed to the varied tastes of different individuals.

THE FESTIVITIES.

On Friday morning by 9 o'clock the convention was on its way to Niagara Falls on the special train arranged for by the Buffalo club and the sights of this famous resort were enjoyed until 1:30 p. m., when the train returned to Buffalo and by 2:30 the excursionists were on their way to Music Hall on street cars which met them at the depot.

In the great hall six long tables had been arranged with a cross table at one end at which sat those who were expected to say something wise and witty later on. Fully 600 people were quickly and comfortably seated and the good things rapidly disappeared for appetites were sharpened by exercise.

Mr. Wm. Scott presided as toastmaster. The first toast was to the Society of American Florists, which was responded to by President John N. May, who said that the National Society had met with kindly receptions in other cities, but no city had ever shown to its guests better hospitality than on this occasion. He then proposed "The City of Buffalo,"

which was responded to by Gen. John C. Graves.

"Our hosts—the Buffalo Florists' Club" was proposed by President-elect J. M. Jordan and responded to by Wm. Scott, and led by Chas. Anderson, of New York, the convention gave three ringing cheers for the Buffalo club.

"Our Guests, the S. A. F.," was responded to by L. H. Foster; "The officers of the S. A. F.," by E. G. Hill; "The officers of the Buffalo Florists Club" by Wm. Scott on behalf of Dan'l B. Long; "Kindred Societies" by Jno. F. Cowell; "The Florists' Clubs of America" by Robert Craig; "The Horticultural Press" by Elias A. Long; "The ladies of the S. A. F.," by J. M. Jordan; "The Executive Committee" by A. P. Calder; "Novelties" by John Thorpe; "The past, present and future of the S. A. F.," by Wm. J. Stewart.

After the speechmaking was concluded the waiting carriages were soon filled and the drive through the avenues and parks of Buffalo was begun. It was dark when the loads of tired but thoroughly pleased florists returned from their ride and all voted the day one of the most enjoyable ones they had ever known.

NOTES.

Fully 500 were in attendance.

The excursion to Niagara Falls was well conducted and all were greatly pleased.

The change from three to two sessions daily was commended by all as a wise move.

The portraits(?) which appeared in the local papers were enough to make the angels weep.

The Hub's invitation was extended with a hearty unanimity, which augurs well for 1890.

Won't there be a crowd at Boston next year? But Horticultural Hall will hold all that come.

Where will the objector to the entertainment feature now find a place to hide his head?

The Buffalo Club is to be commended for the tasteful plant decoration in the convention hall.

The S. A. F. has not reached the zenith of its fame and usefulness. It is still on the upward move.

The Buffalo Florists' Club has covered itself with glory. The dissatisfied visitor could not be found.

The Buffalo people must have had an understanding with the weather clerk. It could not have been more pleasant.

Retiring President J. N. May was presented with a handsome and valuable microscope by Mr. E. G. Hill on behalf of the convention.

As Mr. Robert Craig said: "Great Scott, what a base ball game we did have!" The score was 33 to 11 in favor of the Buffalo team.

Dan'l B. Long of the local committee didn't talk much (except when making announcements), but worked hard and accomplished wonders.

The collation at the Music Hall and the carriage drive through the city afterward were greatly enjoyed. The speeches at the Music Hall were happy and pointed.

There are great possibilities before the Buffalo Club. If they can do so magnificently when young and inexperienced what may we expect at some future time.

In the Bowling Tournament the scores were as follows: New York 737—Buffalo 728; Boston 576—Philadelphia 571; Buffalo 676—Boston 630; New York 760—Boston 697.

Mr. Robert Craig, chairman of the "National Flower" committee reported that the committee considered it inexpedient to name any particular flower at this time.

The thanks of the convention were extended by resolution to the officers, the executive committee, the Buffalo Florists' Club, the Mayor of Buffalo, the essayists and the Buffalo press.

The work of the "Standard Pot" committee was indorsed and it was decided to give a certificate of merit next year to the potter who most nearly conforms to the standard adopted by the society.

The exhibition was certainly of great excellence. The United States Nurseries' show of orchids was undoubtedly the best representative collection ever shown at this time of the year. The exhibits of plants and cut flowers made by Henry A. Dreer and James Vick were also worthy of special commendation. We shall make more extended notes on other pleasing features in future issues.

The National Chrysanthemum Society was organized with officers as follows: President, John Thorpe, Pearl River, N. Y.; Vice-President, Wm. K. Harris, Philadelphia; Secretary, Edwin Lonsdale, Chestnut Hill, Philadelphia; Treasurer, John Lane, Chicago, and an executive committee of nine. The annual dues were fixed at \$2. Those desiring to join may secure full particulars by addressing the secretary.

The \$100 prize offered by Mr. Peter Henderson for the best herbarium of native plants was awarded to G. W. Oliver, Washington, D. C., and so excellent was the second best one that Mr. Henderson generously gave it a second prize of \$50, this going to Mr. J. H. Butterfoss, Lambertville, N. J. The herbariums entered by J. H. Brummel, Carroll Station, Md., and J. Gilchrist, West Toronto Junction, Ont., were also highly praised.

LIST OF EXHIBITS.

L. B. Brague, Hinsdale, Mass.—Ferns, bouquet green, Christmas trees and sphagnum.

Benj. Grey, Malden, Mass.—cut blooms of water lilies, including *Nymphaea Zanzibarensis*, *N. odorata rosea* and *N. Devonensis*.

F. M. Hine, Buffalo—Cut blooms of pansies of excellent colors, form and substance. Received honorable mention by committee.

Peter Henderson & Co., New York—Bulbs of Liliun Harrisii.

United States Nurseries, Short Hills, N. J.—A most excellent display of orchids and decorative plants and cut blooms of hardy plants. Worthy of much more extended notice.

Fred Creighton, New Hamburg, N. Y.—Seedling carnation, pink in color and plants of good habit.

Bunker & Co., Boston—Wheat sheaves. J. R. Wotherspoon, Philadelphia—Watering pots and fumigators.

Whilldin Pottery Co., Philadelphia—A large exhibit of standard pots of all sizes and excellent quality of ware.

Sipfle Perkins & Co., Syracuse, N. Y.—Standard pots in all sizes and of good quality.

Detroit Flower Pot Manufactory—Standard pots in all sizes. Honorable mention was given for their decorated chrysanthemum pot.

D. C. Schofield, New Brighton, Pa.—Standard pots and terra cotta vases.

Milsom Fertilizer Co., East Buffalo, N. Y.—Bone fertilizers.

W. P. Simmons & Co., Geneva, O.—Cut blooms of newly imported geraniums, each one plainly labeled. A style of exhibit which should be encouraged.



ALYSSUM SAXATILE.

A. J. Binley, Glens Falls, N. Y.—Pot washing machine.

Jno. L. Diez & Co., Chicago—Sash bars, gutters, etc.

Smith & Smith, Kenton, O.—Mailing boxes.

W. C. Krick, Brooklyn, N. Y.—Immortelle letters, inscriptions, etc.

J. A. Penman, New York—The Dictionary of Gardening.

J. Horace McFarland, Harrisburg, Pa.—Specimens of printing for florists.

R. F. Lawrence & Co., Buffalo—Dress bouquet holder.

J. M. Gasser, Cleveland, O.—Glazing joints.

C. S. Ford, Jr., Philadelphia—Immortelle letters, inscriptions, etc.

Wm. H. Koehler, Philadelphia—Stuffed white doves, including several novelties in sizes and positions.

N. Steffens, New York—Wire work for florists.

Wilhelmi Mfg. Co., New York—Baskets, etc.

M. M. Bayersdorfer & Co., Philadelphia—Baskets and florists' supplies. Received first class certificate.

F. E. McAllister, New York—Bulbs and florists' requisites.

Philadelphia Immortelle Design Co., Philadelphia—Immortelle designs, letters and wheat sheaves.

B. A. Elliott Co., Pittsburg—Tuberous begonia plants and cut blooms.

Craig & Bro., Philadelphia—Palma and ferns.

J. C. Vaughan, Chicago—Bulbs, florists' supplies, tools etc.

Osman & Co., London, England—Tools and supplies.

C. H. Joosten, New York—Imported plants, including palms and azaleas.

Jno. F. Cowell, Buffalo—Blossoms of hybrid tropaeolums.

Henry A. Dreer, Philadelphia—Palms and other decorative plants, cut flowers of dwarf French cannas and gloxinias. A most creditable exhibit.

James Vick, Rochester, N. Y.—A large exhibit of cut gladioluses for which a first class certificate was awarded. Also an excellent collection of blossoms of asters, dahlias and phloxes.

Dan'l B. Long, Buffalo—Photographs of floral designs.

Wm. K. Harris, Philadelphia—Palms and like decorative plants.

C. Thurston, Ridgewood, N. J.—New begonia, a cross between B. Sanguinea and B. metallica.

Lockland Lumber Co., Lockland, O.—Sash bars, gutters, etc.

J. C. Jewett Mfg. Co., Buffalo—Refrigerator.

H. S. Miller & Co., Newark, N. J.—Bone fertilizers in various forms for florists' use.

Quaker City Machine Works, Richmond, Ind.—The Evans Challenge ventilating apparatus.

E. Hippard, Youngstown, O.—Ventilating apparatus which received a first class certificate of merit.

Hitchings & Co., New York—Hot water boilers and ventilating apparatus.

Eureka Steam Heating Co., Rochester, N. Y.—Steam heater.

D. E. Howatt, Hyde Park, N. Y.—The "Acme" water heaters.

Herendeen Mfg. Co., Geneva, N. Y.—The "Furman" steam heater in several sizes.

Richardson & Boynton, New York—The "Perfect" water heater.

John A. Scollay, Brooklyn, N. Y.—The "Scollay" boiler.

The Birdsall Co., Auburn, N. Y.—The "Steel and Coil" boiler.

Nelson & Forsyth, Berlin, Ont.—The "Renwick" boiler.

Alyssum Saxatile.

When Mr. Whittle was here last May he noticed a little plant of this, the golden alyssum, in bloom, and was much

pleased with it, and it occurred to him that if he could get up a stock of it in pots and have it in bloom at Easter, it "would sell like hot cakes." This is all very well about the little plant which he saw and which had come up as a weed by the edge of a bed of paeonies, but what would he have thought of such a specimen as the one represented in the accompanying illustration, had he seen it in its glory—two weeks before he was here?

This is one plant, two years old from seed, and a dense mat three feet square, and when in bloom was a solid mass of bright golden-yellow, fragrant flowers. The illustration is from a photograph by Sandman, taken second week in May.

Now this plant is "as old as the hills," hardy as a dandelion, evergreen, always of dense, compact form, extremely floriferous, and it blooms from April into May. And as it is one of our earliest spring flowers it needs very little forcing to have it in bloom at any time in late winter or spring. And one good thing about it is, that when in bloom, it can be packed easily without injuring its flowers. One year old plants make excellent blooming stock. I usually sow in March or April for flowers the next spring. In light land and an open sunny situation, it makes a good perennial; in heavy land I have found it most satisfactory when treated as a biennial.

Although the common form is excellent, I prefer the more compact one and select and save my own seed, for not only do the plants vary a little in evenness but also in the brightness of their colors. Still all are good.

Glen Cove, N. Y.

W. F.

The Florists' Protective Association.

The first steps taken in this direction resulting in the organization now effected was in the form of a resolution offered by Mr. J. D. Carmody, of Evansville, Ind., and adopted by the society at New York as follows:

"Resolved: That a committee of five shall be appointed who shall prepare a plan whereby members of this society may be protected from the evil designs of dishonest and irresponsible dealers who, by obtaining goods without paying for them, undersell their honest competitors, thereby injuring the trade at large as well as those from whom their goods are obtained."

The committee appointed in pursuance of resolution consisted of Messrs. Vaughan Craig, Hunt, Carmody and Halliday. Following the committee's report a favorable desire for organization was shown and the committee instructed to prepare constitution and by-laws. These when reported were thought too cumbersome and after free discussion and adjournment a revised plan was presented, which after very short discussion was adopted; officers were elected and fifty members joined. Mr. H. B. Beatty, of Oil City, Pa., was elected secretary and treasurer, and Robert Craig, J. C. Vaughan and Peter Henderson chosen members of the advisory board. General features of the plan are: Reports quarterly, or as often as occasion requires. Affidavits must be affixed to all lists sent in. Rehearing can be had by any one who thinks himself unjustly reported. This plan which in the judgment of some of the oldest members of the S. A. F., is the most valuable feature of the society's work this year, can be had from Secretary Beatty by remitting the \$2 fee entitling to all reports.

Education.

BY H. H. BATTLES.

[Read before the Society of American Florists at Buffalo, August 21.]

In offering this essay I must ask the indulgence of the older and wiser members of this society. If I can so stimulate some of the young members that they may realize the importance of self culture and of training their faculties in the proper channels, that they may lead more useful and happier lives, I shall consider myself most fortunate.

It has been said that "Instruction and breeding are to education as parts to a whole. Instruction respects the communication of knowledge, and breeding respects the manners or outward conduct, but education comprehends not only both of these, but the formation of the mind, the regulation of the heart and the establishment of the principles. Good instruction makes one wiser; good breeding makes one more polished and agreeable; good education makes one really good. Want of education will always be the injury, if not the ruin of the sufferer. A want of instruction is of more or less inconvenience, according to circumstances; a want of breeding only unfits a man for the society of the cultivated. Education belongs to the period of childhood and youth; instruction may be given at different ages; good breeding is best learned in the early part of life."

I think that it was Oliver Wendell Holmes who, when asked the best time to commence to educate a child, very aptly replied, "one hundred years before it is born." Unfortunately some of our ancestors did not appreciate this fact, and because of their oversight we see constantly around us, and even in our business men who seem to work by instinct, knowing that they are obliged to work to live—plod, plod, all their lives.

It is often the case that these same men are the first to express positive opinions; there is apparently no subject too abstruse for them; questions that have been unanswered for centuries they will settle to their own satisfaction with a few words. Happy is the man who can some day wake up to the fact that he has a great deal to learn; that he really does not know it all; and in fact realizes that he knows very little. Then is the time, even if his education did not commence one hundred years ago, that there is hope for him. He feels like a different person, his imagination is excited, his whole being stimulated, and he is anxious to know something of this wonderful world on which he finds himself, and of the brilliant men that have lived before him. For this knowledge, in all meekness he goes to books, and what a new world they open to him—he is surprised that this or that author had the same thoughts that have gone through his clouded mind, with him they have been for years nothing but seeds, yet how naturally they have developed into fruit under the treatment of an educated mind.

There is no class of men who realize more fully what cultivation will do for the vegetable kingdom than we florists. Let us then devote more time to cultivating our minds, that we may get more good out of life; and when old age does overtake us (having health) we can enjoy that repose which is sure to come with an educated mind.

To lead successful lives we must discipline our minds and bodies. Health is the first thing to be considered; without it we are a burden to ourselves, and a source of anxiety to our friends; with it

we can carry our friend's burdens, our minds being clear and active stimulates us in the exercise of our daily duties, with strong healthy bodies we can do more and better work.

Harper Bros., of New York, publish two excellent books on the subject, by Wm. Blaikie, "How to get strong," and "Sound bodies for our boys and girls." In the preface of one he says: "Millions of our people pass their lives in cities and towns and at work which keeps them indoors all day. Many hours are devoted for days and years under careful teachers and many millions of dollars are spent annually in educating the mind and the moral nature; but the body is allowed to grow up all uneducated; indeed, often such a weak, shaky affair that it gets easily out of order, especially in middle and later life, and its owner is wholly unequal to tasks which would have proved easy to him had he given it even a tithe of the education bestowed so generously in other directions. Not a few, to be sure, have the advantage in youth, of years of active outdoor life on a farm, and so lay up a vigor which stands them in good stead throughout a life time. But many, and especially those born and reared in towns and cities, have had no such training, or any equivalent, and so never have the developed lungs and muscles, the strong heart and vigorous digestion—in short, the improved tone and strength in all their vital organs which any sensible plan of body culture followed up daily would have secured. It does not matter so much whether we get vigor on the farm, the deck, the tow-path, or in the gymnasium, if we only get it. Fortunately, if not gotten in youth when we are plastic and easily shaped, it may still be had, even far on in middle life by judicious and systematic exercise, aimed first to bring up the weak and unused parts, and then by general work daily which shall maintain the equal development of the whole."

Secondly, we should cultivate the faculties which secure the necessities of life, the faculties that make us useful in our business. Much could be said on the subject of choosing our occupation in life. Too often it is done carelessly—many a good blacksmith has been spoiled by making him a poor doctor, simply because of a lack of judgment. How carefully the boy's character should be studied before deciding what occupation he should follow; once chosen his energies should be directed in that channel, study every means to perfect him in that branch, and with health and constant application success will follow.

No amount of book learning will excuse a man for not being self supporting. If he consumes and does not produce he is to society what black spot is to our roses. Having health and means to maintain a home, his next duty is to study how to educate his children. Too often parents are so wrapped up in their business and selfish desires that their children pick up what knowledge they can—in school and on the street—and when the child grows up they are surprised that he is so anxious to leave home, and that he has developed this taste, or that taste; not realizing that it was in their power to a very great extent to guide that child's life in the proper channel.

Dickens gives us an excellent example of misapplied energy in the character of Mrs. Jellyby, a woman who devotes all her time to the inhabitants of Borrioboola-Gha, at the expense of her own family. Another story of Dickens' that I have lately re-read with pleasure, and I hope

profit, is "Hard Times," a powerful lesson in life.

Thirdly, social and political relations demand our attention. Our lives depend, to such a great extent, upon those with whom we associate, that our friends should be most carefully chosen. The word "Friendship" is so often abused that it is well to realize its full meaning. The knowledge and fulfillment of political duties teaches us to be good citizens.

After giving our attention to health, business, family, society and politics, we should devote our attention to recreation, the gratification of our tastes and desires. It is well "to know how wisely to lose time." In separating these duties it must be borne in mind that they are but links to a chain, all depending on each other, and all necessary to a happy and successful life. Health, or self-preservation, naturally considered first, as it is necessary to have this that we may fulfill our other duties. Then again, we must have means by which we can live and support our family and become good citizens. All men, with but few exceptions, are employed in producing, preparing and distributing commodities; and it is for the purpose of studying the best methods of producing, preparing and distributing seeds, plants and flowers that these conventions are held.

I will not take time to discuss business methods here. The Executive Committee have presented so many practical questions and such able men will answer them, that what I could say would be superfluous. I am glad to note an awakening interest in the question of color. Knowledge on this subject is absolutely necessary to the successful arrangement of plants and flowers. I note also that the landscape gardener is devoting less time to constructing poorly shaped animals out of plants, and the retail florist is making fewer doves out of flowers, which shows progress in these two branches.

The Florists Clubs, as auxiliaries to the National Convention, are doing much good, but are capable of much more. I would earnestly advise the members of such clubs to establish libraries, using the greatest care in selecting the proper literature, subscribing for the best trade papers, for the monthly magazines, a class of literature that has greatly improved in the last few years. If daily papers are put on the club tables let them be the best, those that contain the shortest account of crime and the least amount of scandal. Our faith in human nature is none too strong, that we can afford to have it constantly lessened by reading the minutest details of the vilest crimes.

Petrarch, in speaking of books, said: "I have friends whose society is extremely agreeable to me. They are of all ages and of every country. They have distinguished themselves both in the cabinet and in the field and obtained high honors in their knowledge of the sciences. It is easy to gain access to them for they are always at my service, and I admit them to my company and dismiss them from it whenever I please. They are never troublesome, but immediately answer every question I put to them." "Some relate to me the events of past ages, while others reveal to me the secrets of nature; some teach me how to live, others how to die. Some by their vivacity drive away my cares and exhilarate my spirits, while others give fortitude to my mind, and teach me the important lesson how to restrain my desires and depend wholly on myself. They open to me, in short, the various



PHORMIUM TENAX VEITCHIANUM.

avenues of all the arts and sciences and upon their information I safely rely in all emergencies. In return for these services they only ask me to accommodate them with a convenient chamber in some corner of my humble habitation, where they may repose in peace, for these friends are more delighted by tranquility of retirement than with the tumult of society."

This, gentlemen, was said over five hundred years ago; think for a moment of the knowledge that has accumulated since then, how many generations of men have lived and laid their products of their labor at our feet. Lord Macaulay in 1825 said: "Any intelligent man may now, by resolutely applying himself for a few years to mathematics, learn more than the great Newton knew after half a century of study and meditation." Do we realize our advantages and make the best of our opportunities?

I wish, gentlemen, that this convention could in some way stimulate the Florists' Clubs, that they might add a library to their possessions. The knowledge that individuals would gain through this medium would reflect credit on the whole trade. How interesting it would be to note what different clubs would select; what a source of profitable conversation is offered when your friends have read

this book, or that book, in which you have been interested. I trust that some gentleman with more ability and power than I possess will say something on this subject that will lead the clubs to think well of these suggestions, that in an early number of the AMERICAN FLORIST we may see an account of the first club to start a library. Which city shall it be?

Phormium Tenax Veitchianum.

Our illustration is from a photograph sent us by Mr. M. Lafferty, gardener for the Laurel Hill Cemetery, Philadelphia, who writes under date of July 16:

"We mail you with this a photograph of a plant of *Phormium tenax Veitchianum* now in bloom here and which will evidently bear seed. We have never seen this variety in bloom before and would like to know if any of your readers have. The plant photographed is growing in a cedar tub 16x20 inches and has sent up three flower stems to a height of nine feet. On these stems are numerous florets, something on the canna order, but much smaller. The seed pods are of the pea shape, each pod containing three seeds.

"We consider the plant useful for ornamental work, and believe that if better known it would fill a space now occupied

by less worthy stuff. We have counted over 200 leaves on the plant at one time from one to six feet in length, every leaf with its outside band of white. The young shoots remind one of a beautiful sunrise. Plants of this variety grown in 6-inch pots make excellent center plants for large vases, standing all kinds of weather."

The plant is undoubtedly valuable as a fine foliage plant. It is slow to propagate but it can be gotten up as quick as aralias and a good many other choice plants, and it only needs cool treatment.

Gladioluses.

Every florist who has ground to spare should grow gladioluses in summer. They are an accommodating and profitable crop and easy to grow and they seem to thrive better in America than anywhere else on the face of the earth. During the winter months when our attention is occupied with greenhouse forcing, our gladioluses are stored in shallow boxes, dry and free from frost in the shed, and the boxes piled one above the other ceiling high and with openings between them for ventilation.

In late winter or early spring as the carnations, heliotropes or other winter bloomers fail and are cleared out we may fill the benches with gladioluses for Easter or other spring trade. Forcing gladioluses is now becoming quite a feature, and as the bulbs are cheap or easily gotten up and we use them as a second crop, the thing is worth considering.

As the spring advances and there is a let up on greenhouse work and a falling off in the supply or demand for flowers, we can find time to plant out our gladioluses for stock. This is usually done—bulblets about the end of April, and mature bulbs between the first of May and the first of June, as time permits, but preferably as early as possible, and always in rows. There is nothing delicate about them, that is, in their constitution, and they are seldom troubled by insect or fungoid pests. And a vast multitude of them can be grown in a small space, and we cultivate them in summer with horse power just as if they were mangolds or cabbages. We ignore European methods of cultivation—we don't plant each bulb singly, head up and a few inches distant from its neighbor, but we open the rows and sow the bulbs thickly in them as if we were sowing beans or peas and with no care whatever of how they lie in the row, and they grow up superbly. The earlier one plants the larger and better matured bulbs he is likely to have, anyhow he will have more, larger and better matured bulblets for increase of stock.

But the florist who is interested in cut flowers should make several plantings, say at intervals of a fortnight, and between the end of April and the 10th of July. This should give him a regular succession of flower spikes between early in July and the end of September or later if frost permits. Planting later than the 10th of July has been uncertain with me, except *Brenchleyensis* few kinds have matured their spikes very well when planted so late.

Gladioluses are increased from seed, multiplication of bulbs, division (seldom practiced here), and bulblets. Seeds germinate as freely as do those of onions, and some of the seedlings show bloom at two years old, but most of them not till three years old. From seed we don't know what we get till we see the blooms, and then many of them are sure to be commonplace. From bulblets we get the

exact counterpart of the parent. In the matter of cultivation we usually treat them as if they were one year old seedlings.

Some varieties require good care and good cultivation in order to succeed well with them, and others again, reds especially, grow strongly and multiply exceedingly with very little care. And this is a good deal the reason why, in the case of mixed gladioluses, the reds after a few years seem to predominate, they have merely outmultiplied and outgrown the paler colors. This is very well understood by growers, and they make a point of thinning out many of the reds every year to maintain a well balanced mixture.

As the farmer grows potatoes for home use and market so should the florist grow gladioluses; he should grow all he wants for his own use in forcing, abundance for summer flowers and a surplus to sell. The summer stock affords him material for summer flowers, and as it is better for the bulbs that the flower spikes should be cut off than retained, we find a double gain in improving the bulbs and having flowers to sell.

Specialists in the cultivation of gladioluses are obliged to grow a very large assortment of named kinds in order to hold their trade with the dealers, and some of these kinds are worth a dollar a bulb. But this sort of business won't pay the ordinary florist, he should restrict himself to a few staple varieties, sorts that are ever in demand and of which he can not raise too many. No matter if they are cheap, if you have good bulbs and lots of them you can sell them.

The ordinary type of gladiolus consists of varieties of what are known as Gandavensis. At present there is not among them a good white or good yellow flowered gladiolus in the trade. Hallock's Snow White is by far the best white that has been noticed, but it is not yet upon the market.

Among the best kinds for a beginner to grow are Shakespeare and La Candeur, whitish, and Isaac Buchanan, yellowish; Brencleyensis and Meyerbeer, scarlet; Phœbus, bright red with white throat; Madame Moneret, delicate pink, and Eugene Scribe, rose and carmine.

For early work, and especially to come in early on a warm spot outside, try Shakespeare, white, and Romulus, brilliant dark red. In fact if they start a little before being set out, as they are apt to do, it won't hurt them any. And if you can afford to get two varieties to hold on to to get up a big stock of try Flamboyant and Le Vesuve, brilliant scarlet and superb.

And further, among pale colored varieties I would recommend Angele, Ceres, John Bull, Norma, Ondine, Reine Blanche and Sylphide, and among the best of the reds Africaine, Cameleon, Couquète, Hesperide, Leander, Mount Etus and Napoleon III.

"Lemoine's Hybrids" are a race of gladioluses that was obtained by M. Victor Lemoine, of France, by crossing Gladiolus purpureo-auratus with G. Gandavensis. Some of these hybrids are very beautiful. The attempt is made to secure brilliancy of color and at the same time retain the characteristic form of purpureo-auratus, for there is quite an inclination among seedlings to partake strongly of the Gandavensis form. The flowers are small, sometimes campanulate, and frequently hooded, but their most positive character is the rich crimson-purple blotch on the two, or often three, lower segments. The plants are vigorous and healthy, but somewhat slender; the flower spikes are moderately long, but often slender, and the blossoms

are more remotely placed in the spikes than is usual in Gandavensis, or crowded near the end of the spike.

These hybrids have the reputation of being hardy, but they are not. Simply because we meet occasional instances where they may have survived the winter is no proof at all of their hardiness. In cultivating them plant them out early in the season and let them stay in the ground late. In fall they seem to be ripe long before they really are fit to dig. Our object is to get the little bulblets well ripened, for unlike the bulbets of most other species that nestle close to the base of the large bulb, these shoot off a little ways and seem to be softer than other bulbets, and they are more difficult to keep over winter.

Their intense colors, dark purple, crimson and gold, may appeal strongly in favor of them as cut flowers; at the same time there is a lot of lilacs, purples, dirty yellows and dirty whitish colors among them that can not find popular favor. And they have another fault, buds don't open well in water. I am informed that Lemoine has now got something extraordinary in this line in the way of brilliant colors, and even a blue one!

The following are, I think, the best we have in quantity: Gambetta, crimson purple; Enfant de Nancy, orange red and crimson, with intensely dark blotches; Sphinx, warm orange, very dark blotches, and M. Henry (Scarlet Lizard), orange scarlet with belts of bright gold along its blotches. Etoile is a fair yellow, as yellows go, and Talma, a lilac-pink, and Marie Lemoine, yellowish and bluish, is about as good as any of its class. There is no good white.

The Max Leichtlin Hybrids. Now let me whet your appetite and make your mouth water, for the grapes are very sour and shall remain sour for a year or two longer, that is, these hybrids won't be sent out before then. You might have noticed a few of them stuck in among the Gandavensis flowers at Peter Henderson's show, but not a word anywhere to indicate what they were. Now let me give you an expert's (C. L. Allen) opinion about these. He wrote in a periodical in 1885: "At Hallock & Thorpe's * * * They have also a new class of seedlings which originated with Max Leichtlin, of Germany, which for size and shape of flowers, together with length of spike, have no equals. * * * When the time comes (when it will be offered for sale) the lovers of the gladiolus may expect such a treat as their eyes have never feasted upon."

These hybrids are a cross between Gladiolus Saundersii and G. Gandavensis, and were raised several years ago by Max Leichtlin, of Baden-Baden, Germany. He disposed of his complete stock to a French firm, who in turn disposed of it to the Hallocks. Gladiolus Saundersii is one of the hardiest of all gladioluses, and has elegant, showy scarlet flowers mottled or suffused with white on the lower segments. In the hybrids most all the pink, orange, scarlet and crimson colors peculiar to Gandavensis, may be found, but the endeavor is to preserve the form of Saundersii and its white markings. And a curious fact about these hybrids is that they supersede immensely either of their parents in vigor of growth, length of spike and size of blossoms. I have measured lots of them 6 feet high, and splendid at that, and whose flowers without being spread artificially, measures $5\frac{1}{2}$ inches across, and when spread out flat by hand 7 inches across.

WM. FALCONER.

Glen Cove, N. Y.

Arboretum Notes.

v.

Scarcely less effective than when in bloom and equally interesting are the shrubs in fruit. The *loniceras*, for example, make a grand show. No flowering plant can be handsomer than one of these shrubs covered with fruit. Among the best is *L. Ruprechtiana*, a variety with narrow foliage and now loaded with bright scarlet berries. *L. Morrowii* is another pretty variety bearing berries of a deeper shade than the former, the color approaching crimson. *L. Tartarica*, the well known Tartarian honeysuckle, is seen in many varieties, with fruit either red or yellow. *L. Xylosteum* has very large berries, but not quite so showy, the fruit being very dark red.

One of the most beautiful midsummer fruiting shrubs is *Sambucus racemosa*. The fruit is in large panicles similar to the well known elderberry, but is bright coral scarlet in color. No more effective object on the lawn can be imagined than one of these small trees loaded with fruit. The fruit ripens early in July and remains perfect for several weeks.

For rock work and similar situations when a low creeping plant is required *Vaccinium Vitis Idæa* is well adapted. It forms a low close evergreen carpet and bears large quantities of scarlet berries resembling small cranberries.

Cotoneaster vulgaris is another very decorative shrub when in fruit. The berries are scarlet and remain from midsummer till late fall. It grows to a height of from three to five feet.

Rhamnus frangula is in fruit and flower at the same time. The berries are seen in all stages, green, red and black; eight to ten feet in height.

The Ribes or currant family is well represented by some exceedingly ornamental species. One of the best is *R. alpina*. The foliage is dark glossy green and the fruit is bright red borne in large quantities close to the branch. *R. saxatile* has berries egg shaped and orange scarlet in color.

WM. J. STEWART.

Boston, August 1.

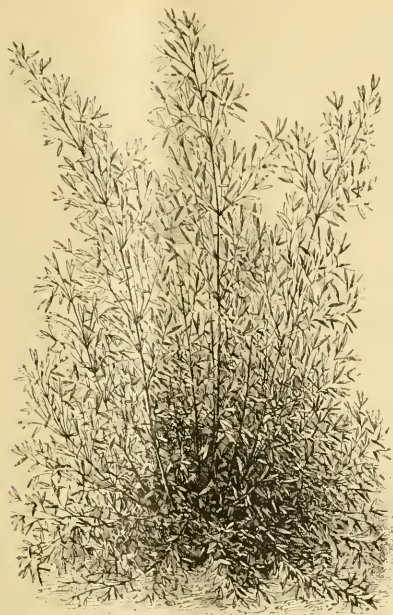
Older Varieties of Bedding Geraniums.

Sparkler is a scarlet bedding geranium of English origin introduced over twenty years ago and at that time commanding a higher figure than geraniums (pelargoniums) are usually sold for, even the most promising new varieties not excepted. It is a most intense color, belonging to the nose-gay section, dwarf compact habit with soft, dark green leaves without zone. It is a most abundant bloomer with immense trusses well filled and lasting, and with me has proved the best scarlet bedding geranium of any I have ever tested.

Gen. Sherman is another of the older varieties par excellence, also belonging to the nose gay section, with large florid and trusses of a light crimson shade, certainly a most distinct color. The ladies ask for it because it is "such a free bloomer."

Of course this class of geraniums are not popular as "house plants" because the individual pips look ragged and less attractive than the round flowered zonals; but out of doors they usually excel in larger trusses and freedom of bloom. For bedding I like single flowered geraniums in preference to double varieties; the general effect is a more brilliant display of color and bloom.

Cloth of Gold geranium is not commonly planted now-a-days, and yet it is a splendid bedder. In the full sun its



BAMBUSA AUREA

abundant leafage is as bright and clear a yellow as Golden Bedder coleus, while its dwarf compact spreading habit is all that can be desired. Flowers and trusses are small, but freely produced, of a rosy red color, contrasting well with the foliage, or they may be removed at pleasure.

I do not think much of variegated geraniums, or coleus even, for planting in a mass; there is where you want a decided shade or self color, but they often contrast well in lines, edging or planted singly. Many variegated plants possess rare beauty individually that is lost collectively.

GROVE P. RAWSON.
Elmira, N. Y.

The New Dwarf Cannas.

There is a promising future for these. They are everybody's plants—the poor man's and the rich man's. They are capital growers and continuous bloomers and their blossoms are quite showy, often glowing. And while they vary in height from about 2 feet to 4 feet, they are very sturdy and bushy. As bedding plants they combine gaiety with tropical luxuriance, and without the semblance of coarseness often peculiar to the robust forms of *C. indica*, and in this way they are fitted for small gardens as well as for large gardens and parks. Rain storms may prostrate the heavy gigantic cannas but the dwarf ones are never broken down or bedraggled, true, their blossoms are often impaired by dashing rains, but their recuperative power is wonderful.

They are peculiarly adapted for commercial florists. There is no need to dry them off in winter if we wish an increase of stock. We can grow them continuously and propagate every shoot. No matter how small the plants may be in May,

if they are healthy, they will make large plants in summer if planted out. But if we wish to merely keep them over in winter we had better keep the root stocks somewhat moist, just as we do *C. Ehemannii*, and not perfectly dry as we generally do the commoner form of *C. indica*.

To Crozy, of France, we are chiefly indebted for this new race of cannas, but within the last couple of years so much seed has been saved and many seedlings raised both in this country and throughout Europe, that I am inclined to believe we are on the eve of an indiscriminate raft of varieties. Last summer I was much interested in examining one of the most complete collections of these cannas in America, and the other day I went over to see them, and to find that this florist had also imported last spring every new variety he could find in France—\$150 worth, besides adding the new American ones. And I must say that I did not think some of the newest ones were as good as the older ones, and there seemed to be too much similarity among many of them, especially the crimson scarlet selfs.

I am not sure why they are called gladiolus-flowered cannas, for while they are as showy as gladioluses their spikes are not very compact. But dwarf cannas are often used as pot plants in France, and gladiolus flower spikes stuck into the pots among the canna foliage. If the soil is kept moist the gladiolus flowers keep in good condition for several days and can be renewed as often as need be. Of course as the cannas are growing plants they retain their foliage fresh and green. And this is quite a feature in house decorations.

The following varieties are all pretty distinct. Among them I have noted those that have been certificated by the

Royal Horticultural Society of London, for I have always regarded such a certificate as being one of the strongest recommendations that a plant can have:

Admiral Courbet, flowers large, yellow profusely spotted with red. Received a first class certificate, R. H. S. of London, August 28, 1888.

Antoni Crozy, rich crimson slightly feathered with yellow on lower side, petals not very broad.

Adrien Robine, splendid dark crimson foliage, quite as dark as that of Senateur Millaud. The only variety we have that has not bloomed yet.

Adolph Wieck, vigorous grower; large showy glowing crimson or crimson-scarlet flowers.

Capricieux, flowers crimson, edged and flaked with golden yellow. Certificated by R. H. S., August 28 last.

Eduard Andre, crimson foliage; large red flowers.

Epi d'Or, buff and reddish. A handsome blossom but not a very good color.

Emile Leclair, of sturdy, vigorous, though dwarf habit; has large, showy, yellow flowers much spotted with bright crimson.

Francisque Morel, showy vivid crimson-scarlet flowers. Certificated by R. H. S., August 28 last.

Felix Crousse, crimson lake, lower petals slightly spotted with yellow. Petals not very wide.

Flamboyant, crimson-scarlet, lower petals slightly marked with yellow.

Grandiflora picta, large yellow flowers freely spotted with small red markings.

Francois Lapeute, crimson-shaded foliage; dark purple stems; vivid red-crimson flowers.

Guillaume Couston, flowers showy, yellow, spotted with red; vigorous.

General de Neigrier, flowers crimson-scarlet, foliage crimson.

Geoffrey St. Hilaire, flowers large, orange-scarlet, fine; very dark foliage. Certificated by R. H. S., September 25 last.

Louis Thibaut, flowers yellow, freely, and about the middle of the petals heavily spotted with red; dwarf habit.

Madame Just, flowers large, buff shading to orange. Certificated by R. H. S., August 28 last.

Louise Chretien, flowers large, yellow, freely spotted with orange. Was in splendid bloom in Botanical Gardens in Washington a month ago.

Paul Bert, flowers glowing crimson-scarlet, large, showy; foliage bronzy green. Certificated by R. H. S., September 25 last.

Revol Marsot, bright reddish crimson flowers slightly streaked with yellow.

Senateur Millaud, large, dark bronzy foliage and bright crimson flowers.

Ulrich Brunner, very large, glowing, crimson flowers. Certificated by R. H. S., October 9, last.

Victor Hugo, flowers rich vermilion; foliage bronzy green. W. F.

Bambusa Aurea.

Bambusa aurea is the name of a hardy bamboo that is grown a good deal around Washington. There are some fine clumps of it seven or eight feet high at Arlington. It is a native of China and named *aurea* because of the yellowish color of its stems. I do not know whether or not it is hardy as far north as New York, but as it costs only 25 cents a plant, and Saul has lots of it, I'm going to try it anyway. *Bambusa Metake* often survives the winter at Boston. W. F.



Keeping Down Mildew in Summer and Planting.

Many rose growers seem to have difficulty in keeping down mildew during the summer months but it is really a simple matter if properly attended to. My method is as follows: Upon the first indication of mildew, in the early morning—from 7 to 9 a. m.—when the sun is shining on the house, I give the plants a good syringing, closing the house up tight. Then placing a half pound of sulphur in the center of half a yard of cheese cloth I gather up the ends making a sort of loose bag, and with hand elevated well above the plants I shake the bag so as to fill the air full of sulphur. This beats the bellows for practical use. The house is kept tight until the temperature is raised to 100° then gradually ventilated—moderately at first. This treatment if persisted in will eventually harden the plants so that they will stand abundant ventilation. I ventilate so freely now that the winds blow directly on the plants and have no trouble from mildew.

A frequent cause of mildew is from over-wet and over-dry spots in the rose beds. Frequent, thorough examinations of the soil should be made. Take a trowel and dig down to the bottom in suspected places, for often while apparently moist the soil may be as dry as dust at the bottom. Where such are discovered a good drenching should of course follow, for if they are allowed to remain the plants there lose vitality and are soon covered with mildew. But with equal care guard against over-watering which produces equally bad results.

When young roses are first planted on the bench I believe in forming a little hollow around them to hold the water, and watering each plant separately. In this way you avoid the risk of getting all the soil saturated and in danger of becoming soggy before the plants are growing strong enough to use the water except that within their then limited reach. Of course after they are growing strongly and the roots are reaching out in all directions the whole bed must be watered. I believe in very shallow beds for roses simply because the danger of over-watering is thereby lessened. According to my idea there should be little necessity for drainage as the plants should receive no more water than they can use, and it is certainly unwise to leach all the strength out of the soil.

I also believe that when planting young roses on the bench the "ball" should never be left intact as it frequently hardens and cripples the root growth. I wash all the soil off my young roses and plant them carefully, spreading the roots out, taking care that the soil is in a properly moist state before allowing it to come in contact with the roots, and find that such make a more immediate and better growth than when planted as they come from the pot.

I suppose every florist now appreciates the value of lime wash in his benches and on the sides of his houses. I use it freely, giving each house a liberal application inside each year, and never fail to give a

good thick wash to the inside of all benches before replanting for another year. It is cheap, easy to apply, preserves the wood and kills and keeps out lots of insect pests.

Normal Park, Ill.

F. F. SMITH.

Rose American Beauty—Mme. Ferdinand Jamin—Mme. Jamin—or, a Lesson in Nomenclature.

In the July number of the *American Garden*, page 250, Mrs. J. S. R. Thomson, under the head of "Some Roses in Carolina," has this to say:

"Mme. Jamin I can recommend as a grand rose which I rarely see offered. It is of a deep dark claret, velvety red, though with me not a vigorous grower. It is exquisitely lovely, of a pale flesh color on the petals, which, when open, instantly remind one of the rich, deep, mottled glowing color in the heart of water melons."

Whereupon in the August number of the same journal, page 293, Mr. J. C. Vaughan retorts as follows:

"ROSE MME. JAMAIN (AMERICAN BEAUTY). If Mrs. J. S. R. T., who writes of the rose Mme. Jamin, will try American Beauty she will find Mme. Jamin all right. Why in the name of honest dealing should not the name American Beauty be dropped forever, instead of perpetuating the disgrace which certain florists of this country brought upon us by introducing this old sort under a new name?—J. C. Vaughan."

The resemblance in names has evidently misled Mr. Vaughan. American Beauty is considered by good authorities to be identical with Mme. Ferdinand Jamin, not Mme. Jamin. There are two distinct roses under the name of Mme. Hippolyte Jamin. One sent out by Guillot fils in 1869, a Tea variety and is described as being "white, tinged in the center with yellow." The other, an H. P., was raised by Garcon and introduced to commerce by Jamin in 1871, and is described as "white, tinged with rose." Neither of the two last named can be the one mentioned by Mrs. Thomson. In Ellwanger's Rose Book the description of Mme. Ferdinand Jamin is "deep rose, cupped form, highly scented." There are two other roses by the name of Jamin—Dupuy and Paul. Ellwanger describes the first as to color, "cherry red with a shade of crimson," and the latter, "crimson, slightly tinged with violet rose." Either of which might possibly answer the description of the Carolina rose.

It is not impossible that the rose Mrs. Thomson speaks so well about is American Beauty, but I am inclined to think that it is something else, for Mrs. Thomson in a concluding paragraph, mentions "Beauty" as among other roses which she has on trial, and in a note received from that lady dated August 5, she stated "I would hesitate to say Mme. Jamin and American Beauty were the same."

It is necessary for us all to be doubly cautious when correcting errors lest we fall into some ourselves. Truly, here are questions for an expert committee on rose nomenclature to solve. They can not be settled off hand. It takes years of experience, observation and research to satisfactorily straighten out many of the tangled up names among roses as they appear to-day, and it is to be hoped that the committee on nomenclature will at the next convention unravel some of the mysterious names which catalogues and horticultural magazines are cumbered with.

EDWIN LONSDALE.

Aug. 10.

Baltimore Odds and Ends.

The present season has so far been a most unfavorable one for effective bedding. I don't remember that we have been blessed—in this vicinity—with one single straight week of dry or good growing weather. I haven't seen much of the bedding in the public parks and squares about Baltimore, but in most of the private places visited I have found it very much below the usual standard. One gardener said to me last week that he hadn't known such a wet season in the thirty odd years he had been at the business.

Geranium Mme. Salleroi—always very liable to "miss" and damp off—has been a special failure wherever I have seen it this summer. It is a variety which I like very much however, and for the past two seasons we have been quite successful with it here. As soon as the plants begin to thicken up I have sufficient of the foliage removed to admit light and air about them; we have frequently cut them over completely, just as we would trim alternantheras, and although a little rough looking for a few days they soon bob up with a fresh crop of bright young foliage.

Some of the catalogues received last spring appeared to be giving a boom to Geranium "New Life." One catalogue described it as a variety "increasing in popularity" and "unsurpassed as a bedder." The florist who wrote that description and myself would not by any means agree in our estimate of this geranium. I consider it a good variety for the retail dealer to grow as a pot plant, as it is neat and dwarf in habit and the peculiar marking of the flower renders it very attractive, particularly to lady buyers, but it scarcely deserves to be classed as an A No. 1 bedding geranium.

Trade catalogues nowadays are in a general way very complete affairs, many of them indeed furnish sufficient information to make a first rate theoretical florist of any intelligent reader, but catalogue descriptions are not invariably reliable, the why or wherefore we don't propose to discuss at present. We would simply suggest that the trade in general would be greatly benefitted if florists who issue catalogues for general distribution would be careful to avoid "puffs" or exaggerated descriptions, which, however, they may serve as present aids in relieving us of stock, are very apt to injure our future trade.

And yet another mistake is that of filling up a catalogue with stock we haven't got to sell. I have in mind a worthy florist who before his recent promotion to the gardens of Paradise, did business in the Keystone state. His home trade amounted to nothing and he was therefore compelled to seek patronage abroad. He issued a catalogue, or more correctly, the same catalogue, every spring, but nine-tenths of the stock offered therein was stock that he hadn't and never did have on his premises. When an order came in he filled it by purchasing the items elsewhere, if he could profitably do so, otherwise his correspondent was politely notified that the stock ordered was completely exhausted. My friend used to regard himself as a wide awake business man, judging from experience therefore, I take it that all the "wide awake" florists have not yet been removed from this "mundane sphere."

I happened to be on hand a short time ago while a certain suburban florist was selling a lot of ferns. In giving directions for their proper treatment he par-

ticularly cautioned the purchaser against the use of manures or fertilizers in any shape or form, and, discussing the matter with him later, I found that he was hopelessly convinced that manure was death to a fern. I modestly hinted that I could show him a good and healthy collection of ferns as he would care to see, and ferns that were liberally supplied with liquid manure too. I use cow manure almost exclusively, and I apply it in liquid form to about every plant I grow. As to its use for ferns, I apply it tolerably strong once or twice a week, and results will have to be very different indeed before I change my practice. Most of my ferns are kept in small pots as being better suited for our purpose, and in order to keep them in condition I find liberal "feeding" an absolute necessity. In the application of liquid manure there is one general rule that I most rigidly enforce, viz: never to apply the stimulant when a plant is in that condition which we understand as "dry." When in this state a plant is generally injured more or less if liquid manure be applied, on the other hand I have particularly noted that if a plant, already "too wet," is watered with liquid manure the same soggyness the same sour, unhealthy condition of the soil which invariably follows over-watering is never produced.

Baltimoreans are largely occupied at present with arrangements for a grand exposition to be held here in September. A notable feature will be the "monster parade," intended to exhibit the industries and resources of the state, our florists don't propose to get left and a committee has been appointed to arrange for a suitable display on behalf of the craft. Although the affair comes off at a season of the year when florists have little time to spare we are getting to be such a live body as to render it certain that Baltimore florists will be creditably represented in the great trade display.

A. W. M.

News Notes.

CINCINNATI.—The Cincinnati Floral Co. removes to 163 Walnut St., Sept. 1.

POUGHKEEPSIE, N. Y.—Chas. Haible has leased the Dutchess Nurseries' greenhouses.

GALESBURG, ILL.—Pillsbury & Gesler are building a new greenhouse and will carry on a general trade here.

HORNELLSVILLE, N. Y.—Wettlin & Harrison have succeeded W. A. Wettlin, the latter having associated with him Mr. N. L. Harrison.

CHICAGO.—The American Floral Co. have opened a store at 225 North Clark street. Walter Kreitling's store was burned out the night of August 13.

BELLEVIEW, ILL.—Gust Grossart is building two new houses, one 70 x 10 and the other 70 x 15. E. W. Guy is rebuilding three houses and adding a new one 40 x 10.

SPARTANBURG, S. C.—Col. J. S. Thomson died August 22. His wife, Mrs. J. S. R. Thomson, is known to the trade as a grower of southern plants and seeds and through her writings for the horticultural press.

EAST LIVERPOOL, O.—Robert Luepke, formerly of Johnstown, Pa., and who lost all in that fearful flood is here endeavoring to get a start in business again. Is not this a chance for the florists of

America to show their generosity by assisting this unfortunate but worthy man?

ST. LOUIS, MO.—Mr. Henry Shaw died August 25, aged 89 years. Mr. Shaw amassed a large fortune in commercial pursuits and then turned his attention to the study and cultivation of plants, and it was incidental to these studies that the now famous botanical gardens in this city which bear his name became the property of the state. Another and perhaps more valuable gift made by him to the state was Tower Grove Park, a resort of great natural beauty. Mr. Shaw's estate is valued at \$2,500,000.

SITUATIONS, WANTS, FOR SALE.

Advertisements under this head will be inserted at the rate of 10 cents a line (seven words) each insertion. References and copy order. Plant ads. not admitted under this head.

SITUATION WANTED—As gardener, 10 years experience in first class private places, good references; single. Address W. O. care Am. Florist.

SITUATION WANTED—As gardener, 14 years' experience; age 32; strictly temperate; good references. Please address J. G. H. care American Florist, Chicago.

SITUATION WANTED—By a first class German S. gardener, 15 years old, single, competent in all branches. Address H. S. care American Florist, Chicago.

SITUATION WANTED—By a practical and trustworthy man, as florist and gardener. Rose growing a specialty. References. Address J. S. HENNETT, Oakdale, Suffolk Co., N. Y.

SITUATION WANTED—A first class middle aged S. gardener and florist in open for engagement. Best of references; commercial or private. Address CHAS. SCHAFER, 254 Glenwood Ave. E. Orange, N. J.

SITUATION WANTED—By a single man; 12 years' experience propagating and forcing of roses and all the leading kinds of cut flowers. Good plant man. References if desired. Address F. N. care American Florist, Chicago.

SITUATION WANTED—Competent middle aged S. German florist and gardener wishes to engage by the first of September. Full particulars will be given by addressing W. K. care H. K. Krueger, 120 Callowhill St., Philadelphia, Pa.

SITUATION WANTED—A young man with some S. experience wishes to improve himself in rose growing. Will give a good offer to a first class rose grower and furnish best of references. Address ROSA, care American Florist, Chicago.

SITUATION WANTED—A Frenchman, 40 years S. old, single, competent in floral arrangement and nursery business as well as garden architecture, desires an active engagement. Address HANS BASCHOFF, 136 E. Broadway, New York.

SITUATION WANTED—As headgardener on small S. private place or as assistant; married; aged 29; understand propagating greenhouse work. Will work on private place; sober, trustworthy, good recommendations. A. B. care American Florist.

SITUATION WANTED—As foreman, private or S. commercial place, good rose grower and general greenhouse work. Also understands landscape gardening. 15 years experience. Best of reference. Address GARDNER, 943 Buttonwood St., Philadelphia, Pa.

SITUATION WANTED—By a first class young florist, single, German, with 8 years' experience in this and the old country, competent in all branches, good in making up floral designs; in a commercial or private place. Address G. D. care Jacob W. Grubb, Wheeling, W. Va.

SITUATION WANTED—By Swedish gardener with S. exceptionally good references, as orchid grower or headgardener. Good all-round hand. 12 years' experience in orchids, ferns, palms, stove and greenhouse plants, florist to flowers, bedding and herbaceous plants. Can grow and propagate roses in America, England, France, Germany and Sweden. Highest recommendations from Royal Botanic Gardens, Kew, and other prominent gardens. Address N. J. care American Florist, Chicago.

WANTED—Antennaria tomentosa, Cerastium tomentosum, Lythymachia nummularia urena. O. OLSSON, box 26, Austin, Texas.

WANTED—By thoroughly practical florist, position as superintendent, private or commercial place; salary required; first rate references. Address with particulars ALPHA, care American Florist.

WANTED—To lease small greenhouse establishment in a live town, a place where shipping facilities are good. Want to grow cut flowers exclusively; can furnish best of references. Address G. O. care Dayton Floral Co., Dayton, O.

WANTED—Gardener. Single, must be sober; to take charge of and run 2 greenhouses for flowers, 100 feet long. Experienced and successful in growing roses and carnations and making up flower pieces. Address with references, DR. G. W. LITTLE, Glens Falls, N. Y.

WANTED—A good second-hand hot water boiler in good condition, with capacity to heat about 600 feet 4-inch pipe. Also want man with necessary fittings, live prices and other particulars. J. W. DAYHOFF, florist, Hagerstown, Md.

WANTED—Experienced commercial florist as assistant foreman at Breer's Nursery, River-ton. The application of only first class men with ability and experience in commercial plant and best of reference will be entertained. Lock Box 1045. HENRY A. DREER, Philadelphia.

WANTED—A practical florist and gardener, must be competent to take charge of two greenhouses, orchard, flower gardens and a 5 acre park; must not be afraid to work; must understand flower raising in all its branches. Rose especially. A steady place for a right man. Compensation \$30 per month, with board and lodging. Address No. 34 Broughton Street, Savannah Ga.

TO LET—GREENHOUSES—4 greenhouses, hot beds and lot of ground, 7 miles from Philadelphia. W. J. FAIRY, Ferry, New Jersey.

FOR SALE—Greenhouse property; one location; good stock of plants. Only greenhouse in city of 10,000 inhabitants. MARY A. WAITE, Newton, Kan.

FOR SALE—In a booming city, a business controlling the trade of 5,000 inhabitants. No discount on it in any. 113 health only reason for selling. Price \$1,500. Mrs. J. B. B. 317 West 9th St., Pueblo, Colorado.

FOR SALE—Good established florist business with 5 greenhouses, a 5-room dwelling, 1/2 acre of land, large choice collection of plants, five blocks from postoffice, in Country Seat of 500 inhabitants. Address S. H. B. care American Florist.

FOR SALE—Or exchange for a first class greenhouse property, a beautiful southern home in the city of Denton, Texas, 2 story house and out-buildings, 3 acres in orchard, 1/2 acre in pond and water, a healthy climate. For particulars address P. O. Box 231, Denton, Texas.

FOR SALE—Or will sell stock for cash & rent cheap. Greenhouses with ground and complete stock, consisting of roses, carnations, geraniums, cuttings and general bedding plants, etc. Houses heated with hot water and built from most modern plans; situated in 3 blocks from 3000 people close to Philadelphia and Camden, near railroad station. Excellent opportunity, best reasons for selling. Cash, \$1,000 or easy terms. Apply early to A. T. E. 225 Vine St., Philadelphia, Pa.

FOR SALE—A rare chance for gardeners and florists. A well established and remunerative business, consisting of 6 adjoining lots in city, with a good dwelling, barn, 2 greenhouses with hot water furnace, a good well and hydrant water supply, 5 acres well cultivated vegetable garden within 1/2 mile from above mentioned premises. Large lot of choice plants, bulbs, trees, etc. 1 horse, wagon, cutter, sleigh, cultivator, seeder, garden implements for sale at a bargain. Apply early to Mrs. MAGDALENE DINGER, Eau Claire, Wis.

WANTED.

Florists will please send their Trade and Retail Lists to the

HOOPSTON FLORAL CO., Hoopeslon, Ill.

FOR SALE.

Five acres, two houses 18 x 100, shed, stable, dwelling, etc., all new, two miles from Denver, the best business town of the west. The property is a very good investment. This limited amount shown as the most heating for lung troubles. Address Box 10, Montclair, Colo.

WANTED.

A thorough florist to run my Greenhouses, or I will take such an one with about from \$300 to \$1000 cash, as partner; or will rent him my houses. They are new, in a good location, on one of the principal streets of Cleveland, with the best line of Electric Street Cars in the U. S., leading to it. Address J. D. SELZER, Brooklyn Village, Ohio.

James R. Pitcher and W. A. Manda have at their Nurseries and upon their Register, some excellent men, competent either as head-gardeners, orchid growers and assistants. Ladies and gentlemen requiring such, please address with particulars

THE UNITED STATES NURSERIES,
SHORT HILL, N. J.

FOR RENT.

Near Philadelphia, five Greenhouses, 7,000 feet of glass heated by steam and hot water, houses in good repair, including stable, office, ground, etc., would suit party having large scale flower trade in city, also good local trade. Stock for sale. Address

W. E. ROWLAND,
MEDIA, PA.

FOR SALE CHEAP.

Three Locomotive and two Return Tubular Boilers, 10 to 40-horse power. Used but a short time.

Address J. A. SHELLEN, Florist,
17th and Tasker Streets, PHILADELPHIA, PA.

THE AMERICAN FLORIST

Subscription \$1.00 a year. To Europe, \$1.50.

Advertisements, 10 Cents a Line, Agate;
Inch, \$1.40; Column, \$14.00.
Cash with Order.

No Special Position Guaranteed,
Discounts, 3 months, 5 per cent; 6 months, 10 per
cent; 12 months, 20 per cent.
No reduction made for large space.

The Advertising Department of the AMERICAN
FLORIST is for Florists, Seedsmen, and dealers in
wares pertaining to those lines ONLY. Please to
remember it.

Orders for less than one-half inch space not accepted.

☞ Advertisements for September 15 issue must
REACH US by noon, Sept. 9. Address

THE AMERICAN FLORIST CO., Chicago.

HIGH EXPRESS CHARGES.

Now that shippers have been thoroughly posted in these columns as to how plants should be packed in order to be carried at a single rate there is little excuse for their packing in such shape as to cause the consignee to pay double rates. Still there seems to be considerable friction between buyer and seller on this account. This should not be. And under the circumstances the shipper is certainly to blame.

He now knows that when it is unsafe to pack in a tight box he can still secure the single rate for his customer by using a crate or a box with a crating over it. Surely this is not difficult to do, and certainly the cheaper you make your goods to the buyer the better he will be satisfied and the more likely you are to retain his custom, and the express charges are a part of the cost of the plants to the buyer. Shippers may rest assured that carelessness in regard to this matter will considerably lessen their trade. We trust that there will be fewer causes for complaint on this score in the future.

THE BEST GERANIUMS.

We have received a goodly number of replies in response to our note in August issue but we need many more, covering all sections of the country in order to make a summary which shall be of value. We therefore repeat our request and trust that every grower of geraniums will see the importance of complying with it.

In order to determine which geraniums are most valuable in all sections of the country for bedding we request each grower of these plants to drop us a postal card naming his best single scarlet, best double scarlet, best single pink, best double pink, best single white, best double white, best single any other color and best double any other color. Remember that the first requisite of a bedder is to stand the sun and look well through the summer. A full report can not fail be of great interest and value to all in the trade. Don't neglect to do your share. It will cost you only a moment's time and one cent.

THE CATALOGUE DISEASE.

In his "Baltimore Odds and Ends" A. W. M. tells of a small florist who catalogued a lot of plants that he did not have and when he received an order for them hustled around and bought them or politely notified his customer that the stock was exhausted. While this method of doing business is certainly not to be commended it is to be applauded as compared with the business methods of some other florists who catalogue a lot of plants they have not got, and when they get an order substitute what they have.

The catalogue disease is becoming practically an epidemic. Catalogues containing lengthy lists of varieties of all sorts of plants are issued too frequently by men who have barely enough glass to house more than one plant of each kind that they catalogue, and to such men the temptation to substitute must naturally be very great. And we can not but believe that such a business, honorably conducted, must be anything but profitable. The cloud of catalogues which bursts upon us every spring is getting to be truly appalling. Can it be possible that the authors of each and every one of these find it profitable? We doubt it, and believe that many small florists are unwise in indulging their wish to "have a catalogue just as well as Jones, and have a bigger one with longer lists of plants than his too!"

That the catalogue business is being overdone there can be little doubt, and in the present fierce competition it will soon be a case of the survival of the fittest. And we predict that the survivors will be those who have honest illustrations and descriptions in their catalogues, who eschew all bombast and exaggerations, and who conduct their business in a square, straightforward way, getting a fair price for a good article which will give satisfaction to the buyer.

Apropos of the manner in which prices have been cut by catalogue men in their "collections" of plants, bulbs, etc., we call to mind the observation of one of these gentlemen that a certain "collection" of bulbs he had catalogued, cost more to fill than the price received? We asked why he had catalogued the collection at such a low price and the reply was that he had "copied the collection out of some other catalogue and thought the man that issued it knew his business." Brilliant business man wasn't he?

THE PREMIUM LIST for the chrysanthemum show of the Society of Indiana Florists to be held at Indianapolis, November 5 to 9, is at hand. The society offers premiums to the amount of \$578, the principal ones being for "25 plants one of a kind, first \$75, second \$50, third \$35, fourth \$20; cut flowers, 25 of large flowering varieties, first \$50, second \$30, third \$20—12 blooms of each, to be on long stems; 25 new varieties of English and French origin—10 blooms of each in vases, one prize of \$50." In addition there are fifteen special prizes—\$250 in cash, a silver cup and a pair of vases. The silver cup is offered by Mrs. Benj. Harrison for "best new seedling chrysanthemum of American origin."

TUBEROUS BEGONIAS—Another lot of blooms of large size and good colors has been received from Mr. T. Griffin, Hackettstown, N. J.

Geranium Vagaries.

In the FLORIST of August 1, on page 598, we notice a few well made criticisms on the misspelling or naming of varieties by many of the leading growers of this country. The matter should certainly be more carefully looked after. Probably in nearly every instance these errors occur from carelessness, and not with the intention of misleading the customer; but in many cases the errors are so great that they simply amount to renaming the variety, hence causing much trouble and confusion to customers. This can be to a great extent avoided by a more careful reading of catalogue proofs.

It is commonly believed that the foreign catalogues are very accurate on this

score, but this is not true in many cases. The writer has now before him three catalogues, Mr. Henry Cannell's, of Swanley, Kent, Eng.; M. Bruant's, of Poitiers, France, and M. Victor Lemoine's, of Nancy, France, and I find by comparison that the same trouble exists (although not to so great an extent) across the water as in America, and that some of the mistakes made in this country are imported, as in the case of new double white variety, Baronne de Layres, which M. Lemoine spells as given, but on examining M. Bruant's catalogue we find he gives it as Baronne de Tayre, and as he is the originator of the variety we must concede his spelling correct. M. Bruant gives a variety as Heteranthus, Mr. Cannell gives the same as Eteranthus; M. Lemoine gives a variety as Etincelant, and M. Bruant the same variety as Eticelle.

We might go on giving many more mistakes of the same kind were it necessary, but many errors are made after the varieties are distributed in this country, as for instance New Geranium Bruant. Why Bruant when no such variety has ever been offered in France? And why new? Geranium Bruant was originated by M. Bruant, Poitiers, France, and sent out in 1883. We imported it from M. Lemoine and offered it in the fall of 1883 in this country under the correct name, Bruant. It is now nearly seven years since it was first offered in this country, hence why call it new? M. Bruant originated the variety, and still catalogues it as Bruant, and represents it with Mr. Blanc's cut of it made in Philadelphia.

We hold that the originator of a new variety has the sole right to name his own seedlings, and no one else has any right to add to, take from, or in any way change the name as given by the originator. Now let us call the grand old variety "Bruant," and in the future let each and every one of us that print a list of plants, either retail or wholesale, try and evade every error possible.

These same criticisms may equally well be applied to nearly every other class of plants offered in this country, and the remarks we have seen fit to make are intended to hit no one personally, but they certainly hit us all. In our own lists of last season (although we had prided ourselves on our correct spelling of the names) we find by comparing the names letter by letter with the originator's catalogues that we had a few errors, in nearly every case only one letter in a name being wrong, but nevertheless errors, and we shall, for one, the coming season use every care possible to have each name correct.

August 7. W. P. SIMMONS & CO.

Coming Exhibitions.

September 17-20, Boston.—Annual Exhibition Mass. Hort. Society.

November 5-8, Chicago.—Chrysanthemum Show Chicago Florist Club.

November 5-9, Indianapolis.—Chrysanthemum Show Society of Indiana Florists.

November 12-16, Philadelphia.—Chrysanthemum Show Pennsylvania Hort. Society.

November 12-14, Boston.—Chrysanthemum Show Mass. Hort. Society.

November 12-14, Orange, N.J.—Chrysanthemum Show New Jersey Floricultural Society.

November 12-16, Cincinnati.—Chrysanthemum Show Cincinnati Florist Club.

November 13-14, Worcester, Mass.—Chrysanthemum Show Worcester County Hort. Society.

CLEVELAND, O.—Henry L. Sonntag has built a new house 100x16 with packing room 30x14.

READING, PA.—D. H. Steckler has built two houses, one 20x60 and the other 18x60.

NASHUA, N. H.—A novel sight recently was a Nashua florist wheeling a load of funeral designs in a baby carriage.

MILWAUKEE.—Currie Bros. are giving their houses a thorough repairing. Archie Middlemass is erecting a windmill and tank for a water supply. Ben. Gregory and G. Volk are each building a new house for violets and pansies.

* HOOPESTON, ILL.—The Hoopes-ton Floral Co., capital stock \$10,000, has been organized here. The charter members are J. S. McFarren, A. H. Trego, T. S. Catherwood and Dr. Wilson. A. C. Wason has been employed as manager, and work on a range of greenhouses has been commenced.

LITTLE ROCK, ARK.—Geo. Vestal has purchased ten acres of land adjoining the city to be used as a nursery. The Arkansas Nursery Co., organized about two years since, is now in the hands of a receiver. The company was composed of business men of this city with E. T. Babcock as manager. D. M. Tipton is building a new house 20x100, and W. H. Herron one 25x50.

VAUGHAN'S CUT FLOWER DEPT.

88 State St., - CHICAGO.

Receives Fresh Flowers morning and evening DAILY.

Send your orders to the above address, where they will be attended to properly.

REMEMBER.—When any one in Chicago has flowers to sell, VAUGHAN has also.

WRITE FOR QUOTATIONS.

KENNICOTT BROS., WHOLESALE FLORISTS, TO THE TRADE ONLY.

ALL CUT FLOWERS IN SEASON.

Write for price list. Consignments solicited.

WIRE-WORK made to order, and in stock.

27 Washington Street, CHICAGO.
TELEPHONE NO. 466.

IF YOU WANT CHOICE, FRESH CUT FLOWERS, WELL PACKED AND SHIPPED PROMPTLY, YOU SHOULD ORDER OF

CHAS. H. FISK, Wholesale Florist

116 & 118 DEARBORN STREET,
CHICAGO,

AND RELY ON GETTING THE BEST
STOCK IN THE MARKET.

Store Open Day and Night.

I keep a full stock of
WIRE DESIGNS
of superior workmanship and at lowest prices. Extra pieces of any description made to order on short notice. Send for Catalogue.

Wholesale Markets.

Cut Flowers.

	BOSTON, AUG. 25.
Roses, Teas.....	\$1.00
" Fancy.....	3.00 @ 1.00
Carnations.....	.50 @ 1.00
Valley.....	1.00
Asters.....	1.50
Mignonette.....	.25
Gladioli.....	5.00
Japan Lilies.....	6.00
Tuberose.....	.50
Pink Pond Lilies.....	8.00
Adiantums.....	1.00
Smilax.....	12.00

	NEW YORK Aug. 25.
Roses, Perles, Niphetos, Souv.	\$2.00 @ 3.00
" Mermets, Brides, Cousins.....	2.00 @ 2.00
" Gontiers, Bennetts.....	1.00 @ 2.00
" La France.....	2.00 @ 4.00
" Am. Beauty.....	8.00 @ 15.00
" Bon Silence.....	15.00
Smilax.....	1.00
Carnations, long.....	1.00
Carnations short.....	.50
July of the valley.....	8.00
Adiantums.....	.75 @ 1.00
Roses in large quantities \$40 per 1000.	

	PHILADELPHIA, Aug. 25.
Roses, Perles, Niphetos.....	\$2.00
" M. Guillots.....	2.00
" Am. Beauties.....	8.00
" Pierre Guillots.....	4.00 @ 5.00
" La France.....	2.00 @ 4.00
Carnations, long.....	.75 @ 1.00
Carnations, short.....	.50
Gladioli.....	5.00
Tuberose.....	3.00 @ 3.00
Asters.....	1.00
Cardinals, Myosotis.....	.50
Water lilies.....	50
Pink pond lilies.....	8.00
Smilax.....	15.00
Adiantums.....	1.00

	CHICAGO, Aug. 28.
Roses, Perles, Niphetos.....	\$3.00
" Bon Silence.....	1.00 @ 2.00
" Am. Beauties.....	12.00
" La France, Mermets.....	5.00 @ 4.00
" Brides.....	4.00 @ 5.00
Carnations, short.....	.50 @ .50
Carnations, long.....	.75 @ 1.00
Callas.....	10.00 @ 15.00
Smilax.....	15.00
Tuberose.....	1.00 @ 1.25
Disbies.....	.25
Gladioli.....	5.00 @ 10.00
Tuberose.....	.75 @ 1.50
Sweet Peas.....	.25 @ .30

WM. J. STEWART, Cut Flowers & Florists' Supplies

WHOLESALE

67 BROMFIELD ST., BOSTON, MASS.

N. F. MCCARTHY & CO., WHOLESALE FLORISTS and Jobbers in Florists' Supplies,

1 MUSIC HALL PLACE, BOSTON, MASS.

Also entrance from Hamilton Place through Music Hall.

We keep a large supply of Fancies and Carnations always on hand. Return telegram sent immediately when unable to fill orders.

—Auction Sales of Plants Spring and Fall.—

WELCH BROS., WHOLESALE FLORISTS, 165 Tremont Street, BOSTON, MASS. We make a specialty of shipping choice Roses and other flowers, carefully packed, to all points in Western and Middle States. Return Telegram sent immediately when it is impossible to fill your order.

GEO. MULLEN, WHOLESALE FLORIST, Florists' Supplies Always in Stock. 17 CHAPMAN PLACE, (Off School St., near Parker House), BOSTON, MASS.

Orders by Mail, Telegraph, Telephone or Express promptly filled.

CUT FLOWERS

The choicest Cut Flowers at lowest market rates shipped C. O. D. Telephone connection. Use A. P. Code when ordering by telegraph. For prices, etc., Address,

J. L. DILLON, BLOOMSBURG, PA.

THOS. YOUNG, JR., WHOLESALE FLORIST 20 West 24th Street, NEW YORK.

LILY OF THE VALLEY
And the Choicest ROSES for the
fall and winter season.

W. S. ALLEN, WHOLESALE DEALER IN CUT FLOWERS, 36 EAST 23rd STREET, NEW YORK. ESTABLISHED 1877. Price List sent upon application.

IV. F. SHERIDAN, Wholesale and Commission Dealer in CUT FLOWERS, NO. 50 W. 30TH ST., NEW YORK. Orders to be shipped will receive prompt attention.

EDWARD C. HORAN, WHOLESALE FLORIST, 36 WEST 29TH STREET, The Bride, Mermel, and Am. Beauties, SPECIALTIES. NEW YORK.

ROSS & MILLANG, WHOLESALE FLORISTS, No. 1168 Broadway, Bet. 27th & 28th Sts., NEW YORK

HAMMOND & HUNTER, Wholesale dealers in Cut Flowers and Florists' Supplies 51 West 30th Street, NEW YORK.

LaRoche & Stahl, Florists & Commission Merchants

—OF—
CUT FLOWERS.
1237 Chestnut Street, - - PHILADELPHIA.
Consignments Solicited. Special attention paid to shipping. Mention AMERICAN FLORIST.

CHAS. E. PENNOCK, WHOLESALE FLORIST 38 So. 16th Street, Philadelphia, Pa.

THE OAKLEY ROSE HOUSES ROSE BUDS WHOLESALE. Beauty, Bride, La France, Perle, Bennett, Niphetos, Mermel, Papa Gontier CHAS. L. MITCHELL, MGR., P. O. Box 188, CINCINNATI, OHIO. Also plants of above by doz., 100 or 1000, 2, 3 & 4-in. Select Stock. Plants in quantity at discount. \$2 WHITE FOR PRICES.

JOHN M. HUDSON, WHOLESALE Commission Dealer in Cut Flowers, 1225 Market St., ST. LOUIS, MO. Quick sales and prompt returns guaranteed. Consignments solicited.

IMPORTED H. P. ROSES.
Worked low on the Manetti Stock, best kinds for forcing. Orders received now for delivery in November. Address
WILLIAM H. SPOONER Jamaica Plain, Mass.

CUT RATES.

WOOTTONS \$15 PER 100

This Rose is being offered by New York parties from 2½ inch pots at \$18.00 per hundred. We therefore offer strong plants from **THREE** inch pots at \$15.00, so that the strongest plants shall be grown for the coming winter's market.

TRY FOR THE GREAT \$300 PRIZE,

to be given by us for the 12 best Blooms exhibited at the meeting of the Pennsylvania Horticultural Society, April, 1890. Open to all comers except ourselves.

PRICES: \$15.00 per 100, or \$2.50 per doz. 25 plants and upwards at hundred rates.

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ROSES ON THEIR OWN ROOTS

A SPECIALTY.

Special Offer for Fall Delivery.

	Per 100	Per 1000
Anna de Diesbach.....	\$4 00	\$39 00
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Hermosa, 1st size.....	2 25	20 00
" 2nd size.....		16 00
Laurette de Messing (New China).....	9 00	80 00
Mme. Gabriel Luizet.....	4 00	30 00
Mme. Plantier.....	2 50	30 00
Magnus Charta.....	2 75	30 00
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AMPELOPSIS VEITCHII, 1 yr. transplanted	6 00	
per 3000 lot.....		40 00
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Nursery stock of all descriptions at very moderate prices. Cash with order from unknown correspondents. For particulars apply to

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SAN DIEGO, CAL.
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ROSES AND SMILAX.

	Per 100
2000 Niphotos, 3 inch pots.	\$5 00
1000 Goutiers, 3-inch pots.	5 00
3000 Smilax, 2½-inch pots.	2 00

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706 Olive Street, ST. LOUIS, MO.

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So say many of FLORAL DESIGNERS, concerning which more can be learned by addressing

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Offer the following Dwarf Roses, assorted, at 25 Shillings per 100. TERMS: CASH WITH ORDER.

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All the above on the Manetti, well grown and healthy. Can be sent from Bristol direct the last week in October.

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Mermets, Brides, Papa Gontier, Souv. d'un Ami, Bon Silene, Cook, Perle, Niphotos and La France, strong plants from 3-inch pots, \$5.00 per 100.

SMILAX. Strong plants from 2½-inch pots, \$3 00 per 100; \$25.00 per 1000.

1500 SMILAX STRINGS now ready to be cut.

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(Successors to I. C. WOOD & BRO.,) FISHKILL, N. Y.

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35,000 of the leading Foreign and Bedding varieties: TEAS, HYBRID TEAS, and HYBRID PETIOLATA. Teas, \$5.00 per 100; Hybrids, \$45.00 per 100. My selection of varieties. Also the leading Prize winning varieties of CHRYSANTHEMUMS, CARNATIONS, and general Greenhouse stock.

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4 to 5 Feet High.

Pot grown plants, and also from open ground, Best varieties and best plants in the country. Now ready for Fall trade.

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Fine, healthy plants grown in 4-inch pots, at \$8.00 per 100, consisting of

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Fresh Crop (1889) Seed, \$1.00 per 1000 seeds.

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LIMITED STOCK STRONG PLANTS**PRIMULA OBCONICA,**
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BOUVARDIA VIRELANTI, strong plants,
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4000 fine Field Grown Bouvardia,
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A FEW HUNDRED 4-inch ROSES CHEAP.

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4000 SMILAX.

Fine stocky plants, 3 inch pots, \$3.50
per hundred; \$32.00 per thousand. 2 inch
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First Class, from 2½-inch pots.
Price, \$3.00 per 100. \$25.00 per 1000.

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Drer's Finest Mixed Pansies, \$5 per 1000.
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WHOLESALE AND RETAIL
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6, 7 and 8-inch Pots at your own price. Any body
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1000 STRINGS TO CUT.
Smilax plants in 4-in. pots. Prices on application.
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500 plants, 2½-in. pots, \$3.00 per 100.
THE WISCONSIN FLOWER EXCHANGE,
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Fine stocky plants, 2½-inch pots, price \$2.25 per 100.
CLEMATIS DAVIDIANA, 4-inch pots, 70 cts. each.
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Clumps in varieties and quantity, ready about
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Special low price on DE GRAW and PORTIA
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CARNATIONS.

1500 Alegatiere, and 255 Hindsale, at \$1.00 per 100.
Field grown—all there is left.

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Best sorts, New and Old. Fine
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Pear, Plum, Peach and Apricot,
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Send for it if not received. Complete in Bulbs,
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THE FLOWER OF THE FUTURE.**Come and see GRIFFIN'S ACCLIMATED TUBEROUS BEGONIAS**

in all their splendor, and judge for yourselves. Growing in the full sun. The finest in
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Singles, \$1.50 per dozen. Doubles, \$2.00 dozen. Orders now booked for fall delivery.

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PANSIES.**QUALITY HIGH.****PRICES LOW.**

I attend personally to selecting the finest specimens only, for my seed bed, trying the various
novelties and discarding those without special merit. Growing seed enough only to produce what
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From the sale of over **100,000 Plants** last season I have received numerous
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PRICES: Good stocky plants from seed beds, 75 cents per 100 free by mail, \$5.00 per
1000 per express. Send for circular.

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ZIRNGIEBEL**NEW GIANT MARKET AND FANCY****PANSIES**

Have again secured all the Prizes at the
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**NEW CROP SEED OF THOSE STANDARD
VARIETIES AFTER JULY 1st.**

Trade Packages of either strain at \$1.00 each.
Packets contain 1,500 and 400 seeds respectively.

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NEEDHAM, MASS.

PANSIES ONLY.

The grandest collection ever offered, including all
the latest NOVELTIES. Our Seed is warranted to be
FRESH, PURE and strictly FIRST-CLASS. Send for
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CARNATIONS—Field-grown.

100 Grace Wilder.....	Per 100
400 Pres. Garfield.....	\$12.00
400 Hinz & White.....	8.00
100 Pres. de Graw.....	8.00
50 Sunrise.....	8.00
50 Miss Jolliffe.....	8.00

HANS NIELSON,
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10,000 Carnations for Sale.

All healthy plants of the following varieties:
Hinz's White, Portia, Crimson King, Snowdon,
Century, Sunrise, Grace Wilder, Duke of Orange,
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On account of retiring from business, will send the
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Carnations, Violets and Pansies.

I have a very fine and healthy stock of above.
Large stock of Hinz's White, \$5.00 per 100.
Portia, Grace Wilder, and other leading sorts; also
some choice New Varieties.
Marie Louise Violets, fine, stocky plants, \$6 per 100.
Pansy Seed and Plants of the Jennings strain.
They are extra fine and cut the best.
Don't fail to send for my price list of above before
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5,000 Carnations in variety, strong plants, open field.
1,500 Bouvardias, double and single, open field.
500 Antepopsis Veitchii, 2½-inch pots.
1,000 Violets, clumps.
5,000 Irish Junipers in sizes from 12 inches to 4 feet.
5,000 Siberian Arbor Vite, 12 inches to 5 feet.
For prices, apply to

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PANSY SEED. NEW CROP.

Prompt delivery at the following special rates:

TRIMARDEAU, choicest French mixed, un-
surpassed in brilliancy of color and size of flowers,
some measuring from 2 to 4 inches across. Price,
per lb. \$25.00, oz. \$2.50, ½ oz. \$1.50, ¼ oz. \$1.00, ⅛ oz.
75c., packet 50c.

Trimardeau, golden yellow, ¾ oz. \$1.50, 1-16 oz. \$1.00,
packet 75c.

" NEW, spotted, large flowering
show Pansies, somewhat smaller than Trimardeau,
but of even more exquisite markings and richer
colors, pronounced by many the finest strain
produced yet. This variety produces few seeds and is
yet very scarce. Per lb. \$50.00, oz. \$6.00, ½ oz. \$4.50,
¼ oz. \$3.00, ⅛ oz. \$2.00, 1-16 oz. \$1.50, packet 75c.

ODIER, Prize Pansies, 3 and 5 blotched or IM-
PERIALIN, extra, per oz. \$1.00, ½ oz. \$2.50, ¼ oz.
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CASSER'S 3 and 5 blotched Giant, extra fine.
Per ¼ ounce \$5.00, ½ oz. \$2.00, 1-16 oz. \$1.50, packet 75c.

FAUST, King of the Blacks, fine for bedding.
Per ounce \$1.00, ½ oz. 75c., packet 25c.

White and Yellow, fine strains. Per ounce 75c., ½
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Emperor William (blue), Lord Beaconsfield (pur-
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Piné German mixed, lb. \$6, oz. 75c., packet 10c.

Improved, large flowering mixed, lb. \$10, oz. \$1.00
½ oz. 75c., packet 25c.

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Sole Agent for

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Special crops grown under contract.
Correspondence solicited. Catalogue ready in Sept.

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THE Finest Strain of Pansies in the World. **Introducer and Grower of all the lead-
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Catalogue free on application.

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Fresh seeds of the choicest strains in
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Pansy Seeds are the best in the world.

Send for Price List.

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Early Delivery Fall 1889

	Per 100	Per 1000
Lilium Auratum, 6 to 7-4 inch circum....	\$ 4 00	\$35.00
" " 7 to 9 " " " " " " " " " "	5 00	45 00
" " 9 to 10 " " " " " " " " " "	6 00	55 00
" " Monstro, 4-in. diam.....	8 00	70 00
" Album (Speciosum) 7 to 8-in. cir.....	9 00	80 00
" " extra fine, 10-in. circum.....	10 00	90 00
" Rubrum, 7 to 8-in. circum.....	6 00	50 00
" " Monstro.....	7 00	60 00
" Longitornum Pst., 4 to 5-in. cir.....	5 50	50 00
" " 5 to 6-in.	4 50	40 00
" " extra fine, 7 to 8-in. cir.....	6 00	50 00
" Krameri, ex. choice, large bulbs.....	7 00	60 00
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We repack Bulbs on arrival from Japan from heavy clay into sawdust, reducing weight more than half, pick out and replace all decayed ones, pay 20 per cent. duty and deliver f. o. b. at above figures. Do not fail to send for our full list of
RARE LILIES, SEEDS, PALMS, ETC. NOW READY.

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Write for new list, now ready.

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HYACINTHS, TULIPS, NAR-
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Lily of the Valley,
(CONVALLARIA MAJALIS.)

Selected Crowns or Pips
FOR WINTER FORCING.

Per 1000, \$7.50, free on board Hamburg or Bremen.

CONDITIONS: Payment one-third of the amount with order, balance on receipt of bill of lading.

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J. A. DE VEER,

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offers Finest Stock of DUTCH BULBS, ROMAN HYACINTHS, PAPER WHITE NARCISSEUS, LILIAM CANDIDUM and HARRISII, LILY OF THE VALLEY (True Berlin pips and Dutch clamps, FREESIAS, CALLAS, AND OTHER DESIRABLE

FORCING BULBS FOR FALL DELIVERY.

Also prime Nursery Stock, such as Roses, Azaleas, Camellias, Rhododendrons, Seeds, etc., from leading growers in France, Belgium, Holland and Germany, at lowest prices.

Sole Agent for HOOPER'S Celebrated Porcelain Flowers.

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LILIAM CANDIDUM, home grown, extra large for forcing. Now ready.

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CALLA, large, California grown roots, to arrive during August.

FREESIA REFRACTA ALBA. Now ready.

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Prices on above bulbs on application.

SEEDS.

Cineraria Hybrida, extra choice.....	Trade pkts. 50c. each
Calceolaria.....	50c. "
Primula Chienensis fimbriata, white or red.....	50c. "
Pansy, extra large flowered, best strain.....	1/4 oz. \$1.00
fine mixed.....	per oz. 1.50
Smilax.....	per oz. 1.00
Hollyhock, 6 varieties.....	10c. per pkt., 50c. for the six.
choice mixed.....	25c. per pkt.

Address MICHEL PLANT AND SEED CO.,
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F. E. McALLISTER,

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SPECIAL OFFER OF FORCING TULIPS. ALL FIRST QUALITY.

Artus.....	\$11.50 per 1000.	Duc von Thol, Scarlet.....	\$ 9.00 per 1000
Belle Alliance.....	17 50 "	Duchess de Parma.....	50c. "
Crimson King.....	9 00 "	Kaisers Kroom.....	25 00 "
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1000 Comprised of 100 each of the above sorts, @ \$20.00. Choice mixed Forcing Tulips, @ \$10.00 per thousand.

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Hyacinths.....	\$3.00 to \$5.00 per 100
Tulips.....	50c. to 1.50 "
Narcissus.....	1.00 to 1.50 "
Lily of the Valley.....	10c. to 1.00 per 100
Lilium Auratum.....	6.00 to 15.00 per 100
" Candidum.....	3.00 to 4.50 "
" Harrisii.....	6.50 to 15.00 "
Spiraea Japonica.....	6.00 "
Roman Hyacinth.....	3.00 to 4.50 "
Calla Lily Bulbs.....	12.00 to 18.00 "

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Cineraria hybrida, extra choice.....	Trade pkts. 50c. each
Calceolaria.....	50c. "
Primula Chienensis fimbriata, white & red.....	50c. "
Pansy, extra large flowered, best strain, 1/4 oz.....	\$1.00
fine mixed.....	per oz. 1.50
Smilax.....	per oz. 1.00
Hollyhock, 6 varieties.....	10c. per pkt.
Microsetta, best variety.....	10c. "
Ten Weeks Stocks, separate colors.....	10c. "

BOOKING ORDERS FOR BOUQUET GREEN AND HOLLY FOR HOLIDAY TRADE.

Address LUDWIG & RICHTER, FLORISTS AND SEEDSMEN,
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CALLA BULBS.

	Per 100	Per 1000
DRY BULBS, Aug., Sept., Oct., strong, \$5.00	\$5.00	\$50.00
" " " " " " " " " " " " " " " "	4.50	30.00
SMILAX—New Crop.....	per lb. \$10.00.	
CANNA EHEMANNI at all seasons,		
very strong roots.....	4.50	40.00
Good roots.....	3.00	25.00

Send for Trade List.

MRS. THEODOSIA B. SHEPHERD,

Seed and Bulb Grower, VENTURA, CAL.

BULBS.

Hyacinths, Dutch, Double and Single, all colors, Hyacinths, Romans, Single White and Pink, Tulips, forcing and garden varieties, Double and Single, Candidums, Harrisii, Narcissus, Paper White, Double and Single varieties, Spiraea Japonica; Lily of the Valley. Fresh Pansy Seed direct from Europe.

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FOR FALL PLANTING.

1000 Choice plants of Grace Wilder, Orient Century, Snowdon, Florence, Anna Webb and White Gem. Price,

\$6.00 PER HUNDRED, \$6.00.

1,500 fine plants Silver Spray, \$3.00 per hundred. We warrant these plants perfectly healthy and as good quality as can be found anywhere.

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ROSES, Gen. Jacq., field grown, 1 year.....	Per 100
Gen. Jacq., 3-inch pot plants.....	\$ 5.00
DAY LILY, White Funks Alba, \$10.00 extra 15.00	
AMPELOPSIS VEITCHII, field grown, good vines.....	per 100 \$16.00
Fine plants from 3-inch pots.....	\$ 4.00
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GERANIUMS, Standard named sorts, 2 1/2-inch pots.....	\$ 2.50
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August sowing, once transpld.....	\$ 3.00
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"Bloms of extra large size and good colors."—*FLORIST*, April 1st, 1893. 230 Seeds, \$1.00.

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Several thousand very fine plants in 3 inch pots, per 100 \$3.00; per 1000 \$25.00. 2-inch, per 100 \$2.00; per 1000 \$18.00.

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DAISIES (Bellis Perennis), strong 1 year old clumps, double white, in condition to divide, \$2.00 per 100; \$15.00 per 1000.

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Double White Primulas

\$10.00, \$12.00 and \$15.00 per 100.

Cash with Order from unknown parties.

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Tree and Pot Labels.

Printed Tree Labels ready wired.

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AT LOW PRICES.

CARNATIONS, strong, bushy plants well pinched in, from open ground. Fortia, E. G. Hill, Haze's White, J. J. Harrison, Crusian King, Columbia and other leading sorts, \$5.00 per 100. Silver Spray, best white carnation to cultivation; very strong plants, \$10.00 per 100.

PALETS, strong clumps, Marie Louise, Swanley and Napoleon, \$7.00 per 100. PALMS, Latania Borbonica, 2 1/2-inch pots, strong plants, \$5.00 per 100; 3-in, \$10.00; 4-in, \$10.00; 5-in, \$10.00; 6-in, \$10.00; 7-in, \$10.00; 8-in, \$10.00; 9-in, \$10.00; 10-in, \$10.00.

Palm Corypha Australis, 2 1/2-inch pots \$6.00 per 100; 3-inch \$10.00; 4-inch \$15.00. Pandanus Utilis, 2 1/2-inch pots, \$7.00 per 100; 3-inch, \$12.00; 4-inch, \$15.00 per doz.

PERN, Lomaria Gibba, nice, clean stock, 2 1/2-inch pots, \$5.00 per 100.

LEGONIA REX, in splendid assortment, strong 3 inch pots, \$5.00 per 100.

HIBISCUS in variety, \$4.00 per 100. JASMINE Grandiflorum, \$4.00 per 100.

SPARGANGI Tenissimus, strong, \$1.00 per 100. PLUMETAG Capensis Alba, \$5.00 per 100.

Murdy plants in large assortment, \$5.00 per 100. ANEMONE Japonica Alba, strong, from open ground, \$8.00 per 100.

COROPUS Lancolata, \$5.00 per 100. CHRYSANTH. Mrs. W. (new of 1893), The Bride, Mrs. Carnegie, Mrs. W. K. Harris, Lillian, E. Bird, Mrs. Levi P. Morton and Wm. H. Lincoln, 4 cents each, \$3.00 per doz.

AMPELOPSIS Veitchii, extra strong, 5 in. pot plants, \$10.00 per 100.

HYDRANGEA Paniculata, Grandiflora, extra fine, 2 1/2 to 3 ft. \$10.00 per 100; 3 to 4 ft. \$15.00 per 100.

PAULIAS, in large assortment, best kinds, whole roots, \$10.00 per 100.

CANNAS. A fine collection, \$5.00 per 100.

An immense stock of Fruit and Ornamental Trees, Grape Vines, small Fruits, Roses, Hardy Flowering Shrubs, greenhouse Plants, etc.

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DICKSONIA ANTARCTICA.

From 3 to 1 ft high, \$3.00 per foot.

CYCAS REVOLUTA.

From 75 cents to \$3.00 each.

CALLA LILIES.

Large flowering bulbs, \$9.00 per 100; \$1.50 per doz.

CHINESE NARCISSUS BULBS

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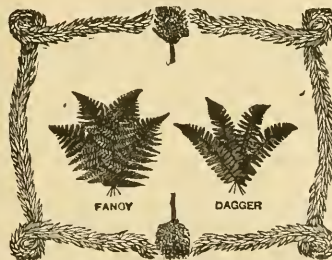
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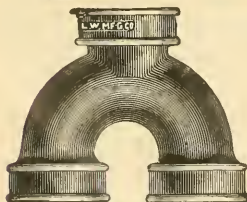
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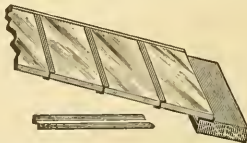
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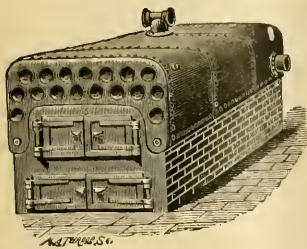
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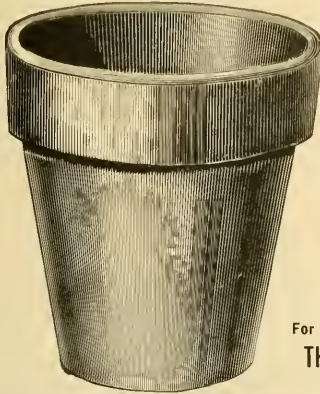
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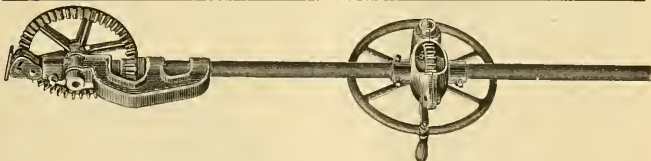
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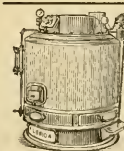
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Index to Advertisers.

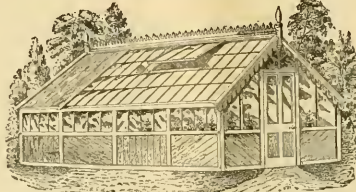
Advertising Rates, 44	La Roche & Stahl, 45
Aldine Printing Wks., 53	Laurence J., 59
Allen, W. S., 45	Laux Bros., 49
Backhouse Jas. & Son, 51	Lockland Lambert Co., 54
Bail Chas. D., 52	Ludwig & Richter, 49
Bail W. D., 50	McAllister, F. E., 49
Bayersdorfer M. Max, 50	McCarthy, F. & Co., 48
Beard, G., 47	McCrea & Cole, 48
Benz Albert, 49	McFarland J. Horace, 49
Berger, H. H. & Co., 49	Marc Gabriel, 47
Blanc A., 46	Mathews, Wm., 52
Bock Wm. A., 50	Merrick, A. T., 49
Cavage J. B., 50	Michel Plant & Seed Co., 49
Brackneridge & Co., 52	Miller, Geo. W., 49
Brennenman J. D., 50	Mitchell Chas. L., 49
Benton W. P., 49	Mooy Polman, 49
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Burrow J. G., 48	Nelson Hans, 49
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Caldwell Geo. W., 49	Pierce Butler & Pierce, 50
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Dwines W. J., 49	Roemer Fred., 48
Ermer, H. A., 49	Rolker, A. & Sons., 49
Eiselt W. J., 50	Ross & W. Lang, 49
Fenden Bros., 50	Roland W. E., 49
Expanded Metal Co., 55	Sander F. & Co., 52
Farmers Fort. Co., 50	Saul John, 49
Fawcett, F. E. & Co., 49	Schiller & Mailander, 52
Faxon M. B., 46	Schulz Jacob, 47
Finch F. L., 52	Scollay John A., 50
Fisher Bros. & Co., 48	Selzer J. D., 49
Fisk Chas. H., 49	Shellen J. W., 49
Forster F. W. & Co., 50	Sheldene W. R., 49
Fryer E., 49	Shepherd Mrs. T. B., 49
Garaway & Co., 47	Sheldon W. F., 49
Gardiner Joo & Co., 53	Siebrecht & Wadley, 52
Gasser J. N., 49	Situations, Wants, 43
Giddings, A., 49	Smith, Isvhy, 46
Greene W. W. Son & Co., 46	Smiths Powell & Lamb, 51
Sayles, 46	Spooner, Wm. H., 46
Grimm T., 48	Stearns A. Lambert Co., 54
Grimth, Jas., 54	Steffens N., 54
Grimth, N. S., 53	Stewart, Wm. J., 45
Hales, H. W., 46	Sullivan Chas. R., 51
Hallack V. H. & Son, 51	Storrs & Harrison Co., 51
Hammann W. S. & Co., 48	Stratton & Storn, 51
Hammond, Benj., 55	Strass, C. & Co., 47
Hammond & Hunter, 46	Studer N., 53
Hantzsch Rudolph, 46	Taplin S., 50
Harenden Mfg. Co., 46	Taylor John H., 50
Herr, Albert M., 48	Thompson Mrs. J. S. R., 46
Hilfinger Bros., 55	Trischler M. & Son, 46
Hippard E., 55	Van der Schuer R. & Son, 48
Hitchings & Co., 26	Vaughan, J. C., 52
Hooker, H. M., 54	Vreeland Bros., 48
Hoopston Floral Co., 43	Weathered, Thos. W., 46
Horan, Edw. C., 48	Welch Bros., 49
Horan Jas., 47	Whilldin Pottery Co., 55
Hoyt R. D., 52	Wilks S. Mfg. Co., 54
Hudson John M., 45	Williams H. W. & Son, 46
Hughes E. H., 54	Wisconsin Flower Ex. 48
Jennings E. B., 48	Withold Geo., 52
Jordan Floral Co., 47	Wolfe L. Mfg. Co., 54
Kennecott Bros., 55	Wood Bros., 47
Krauer J. N. & Son, 51	Young, Thos. Jr., 53
Krick, W. C., 52	Zirngiebel D., 49
Lacy I. B., 48	

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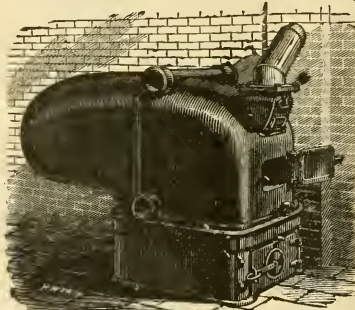


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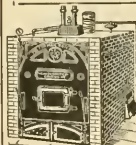
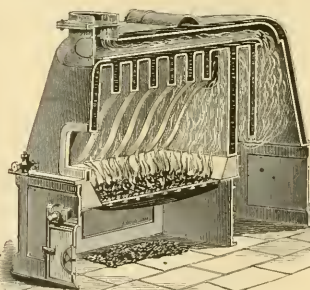
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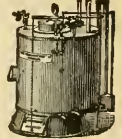
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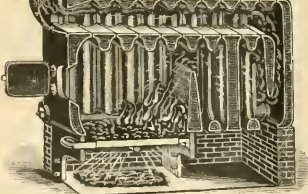
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Vol. V.

CHICAGO AND NEW YORK, SEPTEMBER 15, 1889.

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SOCIETY OF AMERICAN FLORISTS.

J. M. JORDAN, St. Louis, Mo., president; M. H. NORTON, Boston, Mass., vice president; WM. J. STEWART, 67 Bromfield St., Boston, Mass., secretary; M. A. HUNT, Terre Haute, Ind., treasurer. The sixth annual meeting at Boston, Mass., August, 19, 20, 21, 22, 1890.

CONTENTS.

Elevation of our business	57
Echos from the Buffalo convention	58
The exhibits at the convention	59
J. M. Jordan (with portrait)	59
Awards at the Buffalo exhibition	59
Buffalo notes	60
The Executive Committee	60
Chrysanthemums—seasonable notes	60
The National Chrysanthemum Society	60
Mignonette	60
Wood basket of wild flowers (with illus)	61
Wine bottle cover	61
Ruellia macrantha	61
Roses—foreign notes	62
Roses—seasonable notes	63
Rose Duchess of Albany	63
Arbutum notes Vt.	63
Canna flaccida	63
Diseased asters	64
Ants and plant lice	64
Bedding geraniums	64
Experimenting	64
Conservatories of Golden Gate Park (illus)	65
New York notes and comments	65
Boston	66
Radiant heat	66
Floral tribute, funeral of Henry Shaw (illus)	67
The double white pyrethrum	67
Scientific education for florists	68
Catalogue illustrations	68
Am. National Chrysanthemum Society	68
The seed trade	70
New notes	70
Geranium souv. de Mirande	70
Catalogues received	72
Coming exhibitions	74
Minneapolis	76
New Orleans	78

Elevation of Our Business.

BY ROBERT CRAIG.

[Read before the Society of American Florists at Buffalo, August 21.]

It is gratifying to remember that gardening, from the earliest times, has been fostered by the most intellectual and moral of the race, as an occupation, mentally, morally and physically, elevating in its character; from the earliest times the garden has been associated with all that is beautiful and good; the old story of the perfect man, completely pure and happy in the garden, whether it be a relation of an actual happening or only a beautiful figment of imagination, is the most beautiful picture ever conceived by the mind of man. We should have a proper pride in our connection with a calling so noble and should feel the responsibility that rests on each one of us to do what we may to advance the great cause in which we are engaged.

In considering the question how the society can keep on maintaining a high character for the business in America, I propose to glance at it in two aspects, our relation with each other and with the public. In our intercourse together as business men let us recollect that there is room for all who do good work and that jealousy should have no place, but the aim of each should be to deal equitably and to maintain pleasant and harmonious relation with all; one point is that our contracts with each other should be considered as sacred as the contracts in other lines of business are; in some cases we have been lax in this respect; contracts have been made, for instance, to supply a given number of plants or flowers at or within a specified time and not complied with, and the responsibility dismissed with the simple remark "that the cuttings did not strike" or "the dull weather prevented the flowers from opening," or some such flimsy excuse; these possibilities should be thought of before making an unqualified contract. I have frequently known serious losses to occur to the buyer from failure to supply on the part of a contractor; in no other business would this be tolerated or excused.

One feature in connection with our annual meetings that I believe would be desirable, is a market where stock can be sold by sample; buyers can better judge from sample than from description, and the meeting affords the best opportunity for growers from all parts of the country to show what they have to sell; it affords peculiar advantages to offer specialties that are unusually scarce; it has already been tried in our exhibition rooms to a very limited extent and proved useful, but will doubtless meet with general approval if suitable provision is made; everything possible should be done to make it worth while for those interested in the business to attend. Another

useful feature would be a bureau of information for the convenience of those seeking employment, or those who might wish to employ help. It is much more satisfactory to meet face to face than to communicate by letter. The business interests of horticulture require attention at the meeting, for the cause owes more to the enterprise and individual efforts of business men in bringing to light and in disseminating new plants and in cultivating the public taste by means of catalogues than all other agencies combined; the floral catalogues are a great power, they are eagerly studied, and as their statements embody truth or misrepresentation, their influence for good or evil is determined; on the whole, their teachings have been sound, in some instances exaggerated and false statements have been made, and wherever this has occurred it has been a detriment to the whole trade, as its effect is to create doubt in the accounts of all new things: the "cuts" of flowers, fruits or vegetables have sometimes been sad departures from the truth and I have known more than once of a catalogue man sending a "cut" made from a photograph back to the engraver with the instruction to make the flowers or fruit "a little larger and a good many more of them;" sometimes the same cut is made to do service in representing in a dozen catalogues as many varieties of plants. As a hopeful sign in this connection I may mention that a prominent firm last year had all its illustrations exact representations of photographs from nature. The verbal description should be carefully and truthfully made; anxiety to be the first to obtain a large sale should not influence to give glowing and misleading accounts of untried novelties. How many of the "great acquisitions" survive the second year? It is necessary to test well before sending out, in the meantime we have numbers of sterling and tested productions which are worthy of continued praise.

Another thing that requires our consideration as business men is the importance of each individual devoting himself to one or more specialties; the field is now so large that no one can reach the highest excellence in many departments; in law, medicine, architecture and other pursuits the necessity for and power of the specialist is felt, and while a good general knowledge is necessary, it is well for the individual not to spread his efforts over too much ground; the men to day in our business who reach the highest success are specialists to a greater or less degree; I do not mean that it is impossible to conduct successfully all branches under one management, for I believe the near future will discover more than one such firm, but each department will be under the control of a specialist.

In seeking to improve any class of plants we must not expect the improve-

THE ADVOCACY of hardy plants for bedding is not new, but that their use will soon greatly increase is probable. Mr. J. T. Temple, of Iowa, a close observer in floral matters, states that his trade in that state shows a decided improvement the past season on all lines of hardy perennial and herbaceous stock, while the falling off in the demand for soft wooded bedding stuff was as equally noticeable. Views expressed at the Buffalo convention touching this question certainly supported this position. The unusual amount of bedding plants carried over this season in many sections is an added proof that the florist must trim his sails for other breezes. We believe that those who offer a wider range for their customers' selection than geraniums, coleus and like stock will be the gainers for some time to come.

ment to be rapid or startling in its progress, it is usually a very slow and gradual growth; take the improvement of any class of plants, the geranium or petunia for instance, and the progress is so slow as to be hardly noticeable year by year, but in a decade we are struck by the advance. As a means of reaching and securing the co-operation of the public, horticultural exhibitions must ever be indispensable; this has long been recognized, but can not be too often dwelt upon. While their importance is unquestioned it must be admitted that the public is not yet educated up to the point of contributing reasonably to their support. Horticultural societies in this country and Europe are nearly all poor. The most successful one in the country is the Boston society, and if it had not a revenue independent of public support it could not flourish and be the power for good that it is; fortunately, through the wise investments of some of the earlier supporters, it now has a revenue that enables it to conduct its operations in a liberal way; Boston is unusually favored also in the fact that it has the Arnold Arboretum and the Botanic Gardens of the Harvard University to foster the public tastes, and who can doubt that the influence of these institutions has been a great factor in making that city the center of advanced horticulture in this country. Philadelphia is another favored city, as its Horticultural Society has recently become possessed, through the generosity of an estimable lady, Miss Elizabeth Shaffer, a sister of its late president, of the building known as Horticultural Hall, worth \$200,000, and entirely free from encumbrance; the income from which will enable the society to largely increase its usefulness. But all localities are not so favored, and in consideration of the fact that public taste is not sufficiently developed to sustain these exhibitions the question arises, how can they be carried on? The plan adopted by the City of Chicago of assessing a special tax for the support of the public parks, including quite liberal allotments for greenhouses and plants, is an admirable one and suggests a thought; the tax is cheerfully paid in view of the benefits derived; the great majority of the people of Chicago would not give up the pleasure derived from the floral features of the park for twice their cost; it is to be deplored that some of the money is so misspent and that in the midst of much excellent planting we find the most absurd designs of animals, ballet dancers, etc., made of plants, monstrosities capable of shocking even the sensibilities of a savage, but it is pleasant to note that these objectionable features are this year reduced, a healthier tone is being developed and doubtless these things will soon only exist as an unpleasant memory; on the whole the floral part of the Chicago parks are excellently and economically managed, an honor to the city and deserving of all the public support they receive. I can see no reason why the different cities throughout the country should not willingly place at the service of the local Horticultural Societies a suitable hall in which to hold their exhibitions; as an educational and moral force and as a popular branch of science, horticulture deserves such public support and encouragement, and the Florists' Clubs throughout the country can find no better work than to properly bring these matters to the attention of the "powers that be."

While considering the subject of exhibitions it is well to remember that we

are to have, in this country in 1892, the grandest affair of the kind the world has ever seen; there is no doubt that all former expositions will be eclipsed in extent, completeness and grandeur by the one that shall mark the 400th anniversary of the discovery of America; the products of the farm, mine and manufactory will be shown as never before, and it is gratifying to know that the importance of floral display in connection with the event is already appreciated by those having the matter in hand, and whether the great exhibition shall be held in New York, Chicago, or elsewhere, the members of this association should take a lively interest and should use their influence with the appointing power, to have at the head of the department in which they are specially interested a man capable of managing it so that it shall not fall behind the others.

Among the hopeful signs of the times is the great improvement in the horticultural periodicals, in their numbers and in extent of circulation there has been great advance; writers of great ability and industry are constantly presenting the claims of horticulture and diffusing information, the general press of the country is also ever ready at suitable opportunity to recognize the importance of the cause in which we are engaged; the manner in which proposed establishment of the immense Public Garden, by the Torrey Botanical Club in New York, has been endorsed by the press of that city and by leading citizens, shows that the importance of the undertaking is duly appreciated; if it can be completed according to the original design it will be one of the most attractive features of that great city and will be of incalculable benefit. It is proposed to expend the sum of one million dollars to be raised by subscriptions and to model the garden essentially after the celebrated Kew Gardens in England, in inculcating a love of plants among the people and in giving training to thousands of young men, many of whom have become shining lights in scientific and commercial horticulture; it is to be ardently hoped that those who can afford it will subscribe liberally to this great work proposed by the Torrey Club.

The country needs also to be more adequately represented by a National Botanic Garden, there is hope that the Botanic Gardens at Washington would, if its claims were properly presented in Congress, secure from the National Government the necessary support; it has been very ably conducted, with only meagre support, and has done much good, but in its present extent does not fairly represent a country growing so rapidly in wealth and refinement; as an association we should do what we can to help in this, as in every other direction of advancement. In considering the relative standing in artistic matters of this and foreign countries, the facts in the case give the florists of America some cause for congratulation; it is generally admitted that while the American constructive sense is superior to the European, the American decorative sense is inferior, and that in a general way the French excel us in tasteful arrangements requiring a keen conception of color, form and composition; this, happily, does not apply to the work of the best classes of American cut flower artists, nowhere else than in America are cut flowers so gracefully and beautifully arranged; the barbarous "wiring" of flowers is now nearly abandoned, and the blooms are used with long stems, clothed in the

appropriate setting of their own foliage; a great part of the work of this kind done in Europe shows a harshness and stiffness and a disregard for the harmonious disposition of color that is highly objectionable to the artistic eye. The indications are that at least a goodly proportion of our florists are waking up to the necessity of close study on these points.

A recent and very able writer on architecture has pictured a great future in America for that art, and has enforced his predictions with arguments from such an array of facts as to leave little doubt that his conclusions are correct; and if, as Lord Bacon puts it, "A man shall ever see that when ages grow to civility and elegance, men come to build stately, sooner than to garden finely," we can look to the future with confidence, giving our best thought and labor to the end that horticulture shall keep pace with the general advancement.

Echos From the Buffalo Convention.

Mr. Westcott believed that he had a good allowance of conscience having been in the business several years.

The society has lost only three members by death during the past year as against eight the year previous.

Laughter followed the announcement that all wearing the society's badge would be admitted to Forest Lawn cemetery.

"What has become of rose Her Majesty?" was a query which was greeted with laughter and treated as a little "jokelet."

Boston's invitation was extended by Wm. J. Stewart, on behalf of the Massachusetts Horticultural Society, and by Benj. Grey, on behalf of the Boston Gardeners' and Florists' Club.

Regarding light and heavy soils for carnations Mr. Swayne had used both in the greenhouse and could see no difference in results, but in summer he preferred the heavy soil. He plants firmly and cultivates freely.

Replying off hand to the query as to which azaleas were best for Christmas blooming Mr. Harris mentioned Deutsche Perle and Alba Indica as good whites and Mr. Van der Kruijzen as one of the best colored varieties for the purpose.

A resolution indorsing Dr. F. M. Hexamer, editor of the *American Agriculturist*, as Commissioner of Agriculture and John Thorpe as head of the division of horticulture for the World's Fair of 1892 was adopted by the convention, though with a protest from J. C. Vaughan, of Chicago, who claimed that if two New York men be indorsed for these positions Chicago should be given the location.

Regarding the sale of flowers on the streets Mr. Huntsman thought that the effect on the florist varied in different cities. In Cincinnati he did not consider it an injury. He believed that different classes of buyers were suited in different ways and that while cheap flowers on the streets might possibly shorten the florists' sales to a limited extent in summer, this was recovered with interest at other seasons through an increased desire for flowers fostered by purchases from street salesmen during the summer.

In describing the necessary qualifications for properly filling the position of grower in commercial greenhouses Mr. Henderson expressed the belief that one year's American experience was worth ten of European, as much of the latter must be unlearned in order to attain success here. For the position of head gardener on a private place he considered European experience preferable. He



J. M. JORDAN

considered gardeners a poorly paid class and he was not surprised that many of the most capable ones soon drifted into other lines.

The Exhibits at the Convention.

I couldn't help thinking as I walked about through the exhibition rooms that further attention should be given in this direction. True, the exhibits are staged to the best advantage and, so far as space and convenience permit, where they can be fully and freely examined by the public. But this is not enough. Before, between and after the meetings we may saunter through the exhibition rooms and see and examine a few of the things, but very few of us take time to examine everything; in fact there are many things we don't see at all.

Now we are a hard working practical lot of people and we want to know, and know critically, everything in connection with our business. We want to know every new wrinkle in glass and glazing, watering pots and hose, pruning shears, labels and tags, flower pots and vases, syringes and pumps, boxes and baskets for packing, and whatever else the mind of man may devise for use by florists and other horticulturists. The exhibitors of such devices by printed circulars or in person, explain the advantages of their exhibits over all other contrivances of a

similar nature; this is a matter of confidence on their own part and business.

The society appoints a committee to examine and report upon these exhibits and confer awards. This is all very good and an excellent card for the fortunate one who obtains a certificate of merit or honorable mention. But the society can go further and benefit the exhibitor and every member present. I would suggest that the several committees on exhibits make special note of what appears unto them as deserving of such, and on the second or third day of the convention that these special exhibits be brought upon the platform of the convention hall, and there, one by one, publicly discussed. In this I would not include the miscellaneous raft of exhibits, on the contrary, only such selections as the committees believe should, on account of their special merit or demerit, be brought to the light of the society.

In the case of boilers and other heavy, bulky or unwieldy exhibits that could not conveniently be moved, they could be referred to and discussed. We can not afford to invest blindly in anything; we want to know the disadvantages as well as the advantages of every appliance and invention; we want to know the weak points as well as the strong; we want the hard, attested facts as well as the plausible opinions. This is practical education. Inventors and manufacturers

who are sure they have got a good thing would court such criticism, whereas others with weak or shady articles would shun such light. W. F.

J. M. Jordan.

We have pleasure in presenting herewith a very excellent portrait of Mr. J. M. Jordan, the fifth president of the Society of American Florists.

Mr. Jordan was born in the state of Vermont and is now 60 years of age. His early life was spent on the farm. He was early obliged to maintain himself by his own efforts and since his 12th year has fought his own way in the world. He spent some years in the study of horticulture under Mr. Francis Brill, of Astoria, Long Island, who was one of the pioneers in the florist business in the year 1830.

He removed to St. Louis, Mo., in 1859 and opened a floral store in 1869; the first floral store in that city where cut flowers were kept constantly on hand. He has extensive greenhouses in the suburbs of St. Louis and grows a large proportion of the flowers he sells.

Mr. Jordan has been a member of the Society of American Florists since its inception and was a member of its first Executive Committee. He is a pleasant genial gentleman, thoroughly familiar with parliamentary rules and is a model presiding officer. His eminent fitness for the high position he now holds was recognized by the society in electing him to the highest office in its gift by a unanimous vote.

Awards at the Buffalo Exhibition.

FLORISTS' REQUISITES.

M. M. Bayersdorfer & Co., certificate of merit; Osman & Co., garden tools etc., honorable mention; W. C. Krick, immortelle work, honorable mention.

PLANTS.

Pitcher & Manda, orchids and stove plants, certificate of merit; Robt. Craig & Bro., palms, ferns, etc., honorable mention; H. A. Dreer, palms, ferns, etc., honorable mention; W. K. Harris, palms, ferns, etc., honorable mention; B. A. Elliott Co., tuberous begonias, honorable mention.

GREENHOUSE STRUCTURES AND MECHANICAL APPLIANCES.

Herendeen Mfg. Co., boilers, certificate of merit; Hitchings & Co., boilers, certificate of merit; D. E. Howatt, boilers, certificate of merit; J. A. Scollay, boilers, honorable mention; E. Hippard, ventilating apparatus, certificate of merit; Jewett Mfg. Co., ice box, honorable mention.

BULBS.

F. E. McAllister, general collection, certificate of merit; J. C. Vaughan, L. candidum, honorable mention; Peter Henderson, L. Harrisii, honorable mention.

HERBARIUMS.

E. W. Oliver, Washington D. C., prize \$100 and a diploma; J. H. Butterfoss, Lambertsville, N. J., prize \$50 and a diploma; J. H. Brumell, Carroll Station, Baltimore, certificate of merit. [The money prizes were given by Mr. Peter Henderson.]

FLOWER POTS.

D. C. Schofield, honorable mention; Whilldin Pottery Co., honorable mention; Detroit Flower Pot Co., honorable mention.

CUT FLOWERS.

Jas. Vick, gladioluses, certificate of merit; H. A. Dreer, new cannas, certificate of merit; F. M. Hine, Buffalo, pansies, honorable mention.

MISCELLANEOUS.

R. F. Lawrence & Co., bouquet holder, honorable mention; J. K. Kogge, hose mender, honorable mention.

Buffalo Notes.

BY WM. FALCONER.

IT WAS A pleasure to observe that among the five hundred florists who attended the convention there were none who were not interested in the proceedings. These gatherings are both pleasant and profitable.

AT THESE CONVENTIONS between Canada and the United States there is no boundary. We are one people, one great happy family, and meet together on one common basis—our mutual benefit and to know one another and love one another.

AMPELOPSIS VEITCHII was freely used for covering the stone and brick walls of houses, but not nearly so extensively as it should be or probably will soon be. The florists can get up a large stock expeditiously, and when grown in pots it can be transplanted to the open ground in midsummer with just as much safety as in spring or fall. It needs no special care and it is as available for the humble cottage as for the most pretentious mansion. And it clothes the stems of trees quickly and beautifully.

FOR VERANDA SCREENS the Virginian creeper holds chief sway, but occasionally I noticed purple clematises and common celastri. My attention was attracted to a residence on one of the principal streets and which, all except the roof, was completely covered with the densest mantle of Virginian creeper, even the upstairs windows were almost smothered out of sight with the vine. I thought this was a too free use of it.

NO FENCES, NO FLOWERS.—Could you have a more pointed illustration of this proverb than that of the principal residence streets of Buffalo? The entire absence of fences and the well kept belt of grass between the houses and the street impart a beautiful, broad and harmonious bearing. But grass and a few trees will hardly compensate the true lover of flowers for the sacrifice he is most compelled to make for fashion's sake.

VERANDA AND WINDOW boxes are quite a feature in Buffalo gardening; in fact in fenceless gardens but little other methods of flower decoration could be employed. They are well filled with "flowering" and fine-leaved plants and a drapery of vines, but I couldn't help thinking that the cannas and green leaved caladiums in a second story window were a little too high up.

THE GOOD FOLKS of Buffalo seem to believe in "Repose in gardening." There was no great floral display anywhere, neither in public nor in private gardens. Now this matter of trees and shrubs and broad fields of grass are all very well, but surely there is room somewhere for gay flowers and showy leaves. The meadows teem with golden rod, purple loose strife, swamp hibiscus, cardinal flower, sun-flowers, evening primrose, wild clematis, climbing hempweed, and many other seasonable flowers; these occur in nature's garden and in the greatest profusion, then why not these or something else in the artificial garden? At this time of

year we have hosts of Japanese lilies, white and blue plantain lilies, torch lilies, panicked phloxes, perennial sun-flowers, herbaceous clematises, perennial larkspur, coreopsis, pink sedums, and gaillardias among hardy plants; and asters, zinnias, verbenas, Drummond phlox, coreopsis, marigolds, mignonette, scabiosa, everlasting and balsams among annuals; and cannas, caladiums and large grasses for bold effects; and tigridias, gladioluses, Cape hyacinth and dahlias for gay blossoms; and passion flowers, Solanum jasminoides, moon flowers and other ipomæas, manettias and Lobbs uasturtiums among vines. These and many others, all desirable and easy to get and easy to keep; then why don't we use them more freely?

THE EXECUTIVE COMMITTEE.—The three new members of the S. A. F. Executive Committee appointed by President Jordan are Messrs. D. B. Long, Buffalo, N. Y., John Burton, Chestnut Hill, Pa., and Wm. Falconer, Glen Cove, N. Y. The committee is now composed of the following gentlemen: A. P. Calder, Boston; R. J. Halliday, Baltimore; J. M. Keller, Bay Ridge, N. Y.; J. D. Raynolds, Riverside, Ill.; Frank Huntsman, Cincinnati; J. T. Temple, Davenport, Iowa; and the three new members named above.



Seasonable Notes.

By the time these notes appear provision should be at hand to protect any and all plants that are out of doors, as it is very uncertain when the temperature will fall low enough to hurt buds. Looking over some old notes I find that in nine years once buds were injured by frost before the 20th of September, twice before the 25th, once before the 30th, and four times before October 10.

For market the thinning of buds must be closely pursued or they will get too large. The buds are easily displaced by pushing them aside with the end of the thumb. I am leaving on strong shoots of *Gloriosum* three buds, and in thinning I find that the average number of buds removed is 20. On strong shoots of *Triumphante* I leave one bud and the number removed is about 12. I mention these two varieties because of their different habits. There are a few varieties such as M. E. Nichols, *Mme. Damage* and *Virgo Marie* on which I do not thin the buds, but instead clean out all the weakly growth and crowded shoots. Now let me ask those who have never thinned to try it this year.

Specimen plants: The care in watering will be heavy for the next six weeks. I am always very careful to go over specimens first as soon as I get up in the morning, again about 10, then at noon, and then again after 5 o'clock, and often I find a plant requires at least two good soakings each day. If there are any bare or uneven spaces on any plant it is not too late to remedy by training if done at once.

Cut flowers for exhibition: A good many of the buds should now be in sight

and assuming a good size. Select only perfectly round buds where possible and in those cases where you have more than one bud to choose from select the best. See that the plants are securely tied and be careful not to break any shoots by brushing against them, as they will be very brittle for the present.

JOHN THORPE.

The National Chrysanthemum Society of America.

I am anxious to get ideas from all those interested in chrysanthemums before another moon, as to how we can best develop, take care of and further the interest we have at heart. I have an idea that the work will be easy and that we can begin this year.

It seems to me that we should have a committee of from five to seven in every city where a chrysanthemum grows, to examine collections during their flowering, take notes, correct names, spot seedlings and then at the close of the flowering season all data to be tabulated and distributed.

We want to give as soon as possible medals and certificates at every show. We want also to have a national chrysanthemum show each year to go from city to city; a week's show at popular prices and well managed should pay.

We are anxiously waiting for subscriptions, and Mr. Lane, of Chicago, treasurer, or Mr. Edwin Lonsdale, secretary, or myself will be pleased to receive \$2 or more from those who are interested.

THE AMERICAN FLORIST has kindly said that the babe needs suckling and that it will see it is not neglected.

Pearl River, N. Y. JOHN THORPE.

Mignonette.

Having received many letters asking for particulars as to the best way to treat mignonette to ensure getting the best results, I take this means of answering them all through the columns of the FLORIST, and I hope my correspondents will not think me discourteous in the matter, as all the letters were couched in very similar language and press of business prevents me answering each one individually.

To begin right is very essential. Have a good light airy house with the glass not over four feet from the surface of the soil if possible—less will be better. I use a narrow house, eleven feet wide, with raised beds on each side resting on the soil of the same. About 18 inches of good loamy soil is necessary to obtain really fine spikes of bloom. The soil if poor should be slightly enriched with well decomposed manure, about one part of manure to nine or ten of soil is ample; thoroughly incorporate the manure with the soil, rake the surface fine, tread or beat it firmly before sowing the seed.

Next make very shallow drills across the same at 18 inches apart; sow the seed very thinly and cover with fine soil about a quarter inch thick, press or beat the seed in firmly. Let the soil be fairly dry during these operations, and then give the whole a good soaking of water. Shade lightly from bright sun till the young plants show above the soil and keep uniformly moist, but not saturated. Many destroy the seed by letting it get dust dry after sowing it, common sense ought to tell them better. During this process, and at all times, give all the air possible day and night when the weather will permit. As soon as the plants are up and showing their seed leaves remove the shading altogether and give them the



WOOD BASKET OF WILD FLOWERS.

full benefit of the sun; this keeps the plants sturdy. Never let them get so dry as to suffer for want of water.

To keep butterflies out of the house I put a piece of common muslin mosquito netting over the opening of the ventilators on the inside, fasten it there with thin laths and leave it there till all danger from these pests is over. I then take it down and put it away till wanted again; this saves all trouble with caterpillars, which otherwise would entail constant picking every day which is a very expensive job.

Let the plants grow on steadily till large enough to thin out, and when this is done do not be afraid to pull out all except one at every 12 or 14 inches apart. As soon as this is done they will begin to grow very fast and in five or six weeks from the time of sowing will begin to show flower spikes at the leading shoots. As soon as the young laterals begin to show below the flowers carefully pick them out, this throws the whole strength into the flowers and causes them to develop fine long spikes.

As soon as the first spikes are cut the shoots below will in turn show flower very freely, which must be treated exactly as the first was if really fine spikes are desired. From this on they will need almost daily attention in disbudbing etc., and by this time the whole bed will be almost covered with the plants. As soon

as cool nights set in a very little fire heat will be necessary to keep the temperature at 40° to 45°, but under no consideration let the temperature exceed 45° at night if fine mignonette is wanted. Give all the air possible at all times, water when necessary with clear water—no stimulant is needed till the following May.

To keep the spikes straight some kind of support is needed—small brush similar to pea brush only much shorter is probably the simplest way of doing it, two or three sprays around each plant is generally all that is needed. It is very important that a really good strain of seed be sown or there will be so many worthless plants among them that the bloom will only disappoint, and so much time, labor and valuable space will be thrown away.

Summit, N. J.

JOHN N. MAY.

Wood Basket.

This is a genuine wood basket, originally made to hold logs for an open grate, but it is very well adapted to hold this beautiful collection of wild flowers, from New Jersey. Too often do we lose sight of the great beauty of simple flowers, because they have no commercial value.

It is well for us all to cultivate the habit of observing closely, and frequently when it is least expected we shall find the most delicate shapes and exquisite colors.

We have heard boys say, "I don't have a chance to make up," this inexpensive arrangement offers a field in which any boy can study if he has the desire; and he possibly would realize the force of the old saying, "Where there is a will there is a way." H. H. BATTLES.

Wine Bottle Cover.

The wine bottle cover illustrated in last issue represents a common straw cover that is used to protect wine bottles for shipping. Such covers can be had at any wine dealers. Care should be used to select only those that are not soiled, and that are not musty (as they frequently are); the odor would be disagreeable when filled, should they be so.

We generally cut the string at the largest end, and insert a heavy wire so that the opening can be shaped as desired. Some of the straws can be bent into studied carelessness. We have often used the rarest flowers in this arrangement; the contrast between the receptacle and contents is most striking.

The spider's web which we have been making for a number of years adds to some floral arrangements. When the web is sprinkled with water the effect is very much like dew; we have also used diamond dust on the webs and the effect under gas light can be imagined. These webs are made of very fine steel wire, and every retail florist should be able to make them; and I would suggest, that it offers a very good test of a boy's skill, and a good lesson in "manual training" to instruct him in making the same.

H. H. BATTLES.

Ruellia Macrantha.

When this plant was sent to me some years ago I thought it would not be much better than *R. formosa* or *R. speciosa* which, bearing small, insignificant flowers, would be of no value in our place and consequently no attention was given to it. The plant was in a 3 inch pot all summer and placed in a corner among other plants, where it got a little water occasionally and grew up in one long stalk. With all the hard usage and mistreatment flowers formed in December and I was astonished to see the large bright rosy flowers produced from the terminal leafaxils, continuing to open out for two months on the same head or branch. I determined to grow a few of the plants as a trial and found that we could sell them to good advantage at that season. We have but few blooming plants of any description suitable for house culture in midwinter, and as this ruellia is in no way particular as to treatment and is sure to bloom at the holidays, my opinion is that every retailer should grow it.

The flowers are large, trumpet shaped, of a bright rosy color, veined distinctly with dark purple, and although coming really from the axils of the leaves, yet when not examined closely appear to be a dense terminal cluster of bloom, the large erect flowers hiding the top leaves completely. The leaves are of a dark glossy green, somewhat pubescent, and are not apt to turn yellow or to drop off, and the habit of the plant is most pleasing, resembling a *justicia* in growth and foliage.

Cuttings root at any time in the year most freely, and by pinching in once or twice we get low bushy specimens and every shoot will perfect its flowers in midwinter at a time when other showy blooming plants are not very abundant.

Large specimens two feet high or more are very useful for church or other decoration, and the large heads of flowers are so conspicuous and stand out so bold above the foliage that everybody must admire them. The soil should be rather light but very rich and water be used freely at all times. We keep the plants outdoors in summer and on approach of cold nights give them room in an ordinary greenhouse without excessive heat. I have never noticed any insects on the plants and do not think that it has any special enemies of that description.

J. B. KELLER.

Rochester, N. Y.



Foreign Notes.

A beautiful day in June found an American lover of roses wandering through the rose fields of Messrs. Wm. Paul & Son at Waltham Cross, England. Being interested in the new varieties we were shown these first.

The variety *Marchioness of Lorne* attracted our attention at once as being a rose worthy of special note; this variety as grown at Waltham Cross exhibited all the free blooming characteristics of the Hybrid Tea section, to such an extent was this trait prominent that the writer failed to find a single shoot on the many plants in bloom that did not terminate with a fine plump bud. Not far distant were a group of *La France* and rows of other varieties in the Hybrid Tea section; a careful comparison showed *Marchioness of Lorne* equally as free flowering as any in the class mentioned. Your correspondent thought that here was the long looked for dark continuous flowering rose that should be to the American grower of cut flowers a most valuable variety; here was presented a rose with a good constitution, splendid foliage, a long pointed bud with exceeding broad petals, in color a most beautiful rich rose crimson. So impressed was I with the sterling qualities of this beautiful variety that I began to count my shekels both actual and prospective with a view to investing—Yankee like—my little all. Visions of prospective profits in the near future warranted an invoice of available cash with a view to investing in this section of royalty.

As it was too early in the season to get a price named I determined to have another look on returning from the Continent some six weeks later. On the second visit we saw our fair *Marchioness* in regal splendor and actually overloaded with magnificent buds and bloom. This was the case on all the plants, both old and young, in pots, and those in the open ground, close inspection showed every shoot—without exception—with an open flower, a beautiful bud or a bud in embryo. Mr. Wm. Paul honored us by his company and guidance on this particular occasion, and we felt he had just pride in his seedling the *Marchioness of Lorne*. In commenting on this rose Mr. P. said: "It possesses good habit, splendid constitution, is of a rich fulgent rose color, sweet scented, and is especially remarkable for its truly perpetual char-

acter, every shoot being crowned with a flower bud." Every word of which was true regarding his seedling. Some one will say that the Hybrid Perpetuals flower in that manner in England on account of the moist climate, which is true in a measure, but the *Marchioness of Lorne* was entirely unlike even the less pronounced varieties in the H. P. class.

On the writer's return to America, curiosity, in part, led to a visit to Mr. Peter Henderson's, knowing Mr. H. had bought a small quantity of this variety in June and that I should have the opportunity of seeing it in America under glass; judge the disappointment at finding the *Marchioness of Lorne* growing like all the other H. Ps. in this country without a trace of its free blooming character visible. Not a single flower had been produced on the two dozen or more plants Mr. H. had bedded on his bench. Thinking that perhaps through accident in filling Mr. H.'s order a mistake had occurred; immediately on reaching home I went at once to see how our plants of the *Marchioness* were progressing, and, lo, here they were, three feet in height and not a bud present or in prospect, and like Mr. Henderson's plants they had not produced a single bud or flower.

How are we to account for such a marked difference in the flowering character of this beautiful rose? is it to be attributed to climatic influences, to soil, to the intensity of the sun's rays, or what reason can be assigned? Will some one explain? We can in view of the facts above stated often misjudge and do injustice to worthy, conscientious men on the other side who have simply stated the facts regarding the roses they have introduced, and yet these roses through some influence(?) or other belie what is said about them when grown in our hot and burning sun.

Polyantha Rose: Clotilde Soupert. The polyantha roses are being more appreciated than a few years ago, and they now enter quite largely into the commercial sales of the rose houses. Some prejudice was begotten when these charming little roses were introduced by the varieties not having the strength or power to open their buds perfectly; but with the advent of the varieties *George Pernet*, *Gloire des Polyanthas* and the variety *Clotilde Soupert* some most charming additions to this interesting family of roses have been made. *Clotilde Soupert* is the result of crossing the polyantha rose *Mignonette* and the old tea variety *Madam Damazin*; it is of very strong vigorous growth, forming a nice shaped plant and attaining about 15 inches in height. The branches are not crowded as is the case with most of the polyanthas, but are more evenly disposed and when grown form naturally a nice symmetrical plant. Its color is a pearl white, shaded at times with silvery rose; it resembles the Hybrid *Noisette Boule de Neige* in form, and is almost as large when well grown. It is very free, quite fragrant and can not fail to be a splendid market plant for growing in pots for spring sales. It was raised by the Messrs. Soupert et Notting, of Luxembourg, where it is being grown in great quantity to meet the demand for it in Europe. It was so charmingly beautiful that an American catalogue man, quite well known to the readers of the *FLORIST*, purchased one third of the stock of this rose for dissemination in America the coming season. In addition to its suitability for market purposes it will be very useful to the flower worker, forming as it does nice

sprays of open flowers and half opened buds. We shall be disappointed if this variety with the other two sorts mentioned does not tend to popularize this section of the rose family.

Lady Mary Fitzwilliam: In England and in fact in many parts of the Continent this rose takes a very high place in the estimation of the rose loving public. Attesting its popularity in Europe are the great quantities of this fine variety in nearly every European rose nursery. As grown in England on the *Manetti* and *Seedling Brier* it attains a size and charm not met with in this country. It is too bad that it so readily succumbs to black spot in the open air in this country, in fact it is practically impossible to have it succeed in the open ground in our northern states. This is one of Mr. Bennett's roses and it is with pardonable pride he points to "one of his children" as being as popular as any other variety of rose in England. Its size when grown as "maiden"—i. e. first year's growth from the bud—is marvelous, rivaling *Paul Neron* in size, but of much better form and finer finish. There was distributed in England the past May two sports from *Lady Mary Fitzwilliam*, one called "White Lady" (Wm. Paul & Son), and the other "Maid of the Mist" (Henry Bennett). It is difficult to detect even the slightest difference between them, and coming as they do from two noted rosarians it is to be deplored that they did not "pool" the names if not the stock of the two roses. Intending purchasers can buy under either name knowing they will have the same rose from whichever quarter it comes.

The question was put and answered at the meeting in Buffalo: "What has become of Her Majesty?" I could not help recurring to the time of our first society meeting at Cincinnati, when Mr. May held aloft a plant of the rose in question which had made a growth of six feet or more in some six weeks time; then we had Mr. Peter Henderson's opinion of it cabled back from Europe ordering 1,000 of it at not a small price either. John Henderson, Mr. Craig and others attested the anticipated glories that lay hidden back in the dormant buds of the fine example of growth which was presented to view, all of which shows that as the old Scotchman said: "We gang aft aglee." I had a German friend who planted a portion of a house with this rose and who had promised me some wood for grafting purposes. When I went to get this promised wood he was in anything but a pleasant mood and curtly informed me he had "Trimmed Her Majesty mit a spade." It was his way of saying he had dug them up. After all the disparaging words I had heard respecting this rose and the disappointment it had caused I could not but feel pleased to see it in the garden of Mr. Bennett. He had a portion of a row of cut back—either two or three year plants—which were a sight to behold, and I am free to say I never saw anything finer in its line of color. It was the perfection of form and although very large it did not appear coarse, but it had a finish and a silvery gloss that I shall long remember. Her Majesty was doing fine in the Duchy of Luxembourg and was highly esteemed there. No one would blame Mr. Bennett a particle for sending out a rose which when grown nicely shows such beauty as Mr. B. brings out in his cultivation of this variety. It, however, mildews all over Europe and is generally discarded by the rose men as too difficult to grow.

E. G. H.

Seasonable Notes.

This is one of the most important seasons of the whole year to the grower of roses for winter bloom, as any neglect now will greatly damage the product for the whole season. The cool nights we are now getting, unless great care is taken, will result in a very abundant crop of mildew and black spot; in fact, the last is nearly always produced by just such conditions. Clear bright nights with the outside temperature ranging from 50° to 56° is sure to produce a condensed moisture in the greenhouse which, if allowed to continue many nights in succession, will certainly produce fungus in one shape or another, and black spot being the worst form of it great care should be taken to remedy the bad effect it has on the plants by making a small fire—just enough to expel the dampness from the houses; even when the temperature does not fall below 56° it is better to have a little heat in the pipes and leave a crack of the ventilators open, this produces a circulation of air and prevents the moisture settling on the plants enough to do them any harm. Many doubtless will think this is waste of time and fuel, but it certainly is not, for even on the ordinary pure tea varieties where black spot does not usually do much damage, it will save much trouble with the ordinary mildew, which is sure to affect them more or less, and if allowed to get started is very hard to stop till cold weather comes and strong fires are needed.

Avoid as much as possible having any surplus moisture in the house at this season by watering early in the day only, and then only giving what the plants actually need to keep them healthy. Give all the air possible during fine weather and endeavor to have a dry healthy atmosphere in the houses at night, this is really the best remedy for all fungoid diseases, especially those named above.

There is another disease which is very prevalent in some places at this season of the year and in the spring when the fires are allowed to go out too early. It is caused entirely by condensed moisture in conjunction with a stagnated atmosphere. It has been described in the *FLORIST* two or three times, but as many have not read it I will endeavor to describe it again. It makes its appearance after several nights when the moisture has been particularly heavy upon the young foliage; any one going through the houses early in the morning when the temperature ranges anywhere between 50° and 60°, will notice a very heavy dew all over the leaves and around the edges will hang little drops looking like pearls (many think their plants are the picture of health and looking most beautiful under such conditions). If this is allowed to repeat itself several nights in succession the chances are that when the sun has gained some power, say in the neighborhood of 10 o'clock, many of the young leaves, particularly on the strongest shoots, will look slightly wilted and, by 2 or 3 p. m. possibly, the whole bench will have the same appearance. If they are carefully examined it will be noticed that a slight discoloration of the stems has taken place and in 30 to 40 hours from this time more than half the leaves will be laying on the soil, and the fine promising looking plants of a few days before are sorry objects to look at. I have had many growers of long experience emphatically declare that the cause was gas from some furnace, or some particular kind of manure or fertilizer they

had been persuaded to use; in fact, they were ready to attribute it to anything except the right cause, which was simply condensed moisture; and this disease is always worse where the soil in which the plants are growing is a little too moist.

If this disease once strikes the plants bad, half your crop for the season is gone, as it will take them a long time to recover from its effects, therefore avoid it by a little careful treatment. One trouble there is to convince many of its cause is that exactly the same conditions in the open air produces the very finest roses, they not taking into consideration the difference in the conditions between the plants in a greenhouse and those in the open ground, which any one who will give the matter very little thought can readily understand.

Summit, N. J. JOHN N. MAY.

DUCHESS OF ALBANY.—A half dozen blooms of this new rose have been received from Mr. M. A. Hunt, Terre Haute, Ind. As far as the bloom is concerned it certainly merits the description of "an improved *La France*." It is a little deeper pink and of a more solid color than that long popular variety, has a similar fragrance and does not so soon present a ragged appearance. If the plant shows a corresponding advance in freedom of bloom and growth *La France* has a sturdy rival in this new comer.

Arboretum Notes.

VI.

The number of shrubs which bloom in late summer is very limited. The nursery in the Arnold Arboretum, which a few weeks since looked so gay from a distance, now appears only as an expanse of green. It is only by going down through the rows one by one that we come across a bright spot occasionally, just enough to show that there are a few things which can be depended upon for bright flowers even now, and that in reality there is not a day from early spring till late fall when by careful selection we may not have some shrub in bloom.

Among the most brilliant blossoms in August are the hypericums. Indigenous to our own country are *H. Kalmianum* from the Great Lakes, a shrub not exceeding three feet in height, with good foliage and bearing an abundance of golden blossoms from July to September, and *H. aureum*, a very large flowered species from Tennessee, also a new species from the mountains of North Carolina, bearing clusters of small yellow flowers somewhat resembling sedum. This latter is *H. fasciculata*. Then there is the European variety *H. hircinum*, particularly attractive on account of its long projecting stamens.

The hydrangeas are also among the most useful of summer blooming shrubs. Indeed by planting the various showy species a succession of bloom may be had continuously from June till September, beginning for instance with *vestita*, then following with *pubescens*, *arborescens*, *radiata* and its varieties, *paniculata*, and ending up with the well known favorite *paniculata grandiflora*. The above enumerated are all good and well worthy a place in any shrubby bed. And then the *callunus* or *Moor Heaths*. What can be prettier for rockeries or the borders of shrubby beds than these sturdy little plants! There are about thirty kinds to be seen at the Arboretum, the majority of them forms of *C. vulgaris*. They come in white and various shades of pink and lavender. They have been in bloom now for six weeks and are still looking bright.

And prettiest of all are the graceful little Killarney Heaths (*Daboecia polifolia*) with white or rose purple bells in loose racemes. A variety known as *versicolor* bears both white and pink flowers on the same plant and often on the same branch.

Tecoma radicans var. *grandiflora* is a great improvement over the old favorite Trumpet Creeper. It is a new garden hybrid recently imported from Veitch. The flowers are four inches across and foliage is of a handsome dark green.

Incarvillea Olgae, a genus nearly allied to the *tecomas* is also very showy when in flower. It is perfectly hardy with purplish flowers and subfruticose stems. It flowers in August and September.

Unexcelled in fragrance and strongly reminding one of the spring time are the *clethras*, with their showy racemes of white sweet scented flowers. The best are *C. alnifolia* (the commonest variety), *C. acuminata*, a southern species bearing longer flower spikes than the former although not so pure white in color, and *C. tomentosa*, also a southern species, which is the rarest of the three and the best for late bloom.

Among the clematises now in bloom are *Davidiana*, with its beautiful porcelain blue flowers, *graveolens*, with yellow flowers two to three inches across, which has been in bloom all the latter part of the summer and is now seen in fruit and flower at the same time, and *Pieroti*, a species from Japan which is now perfectly loaded with white clusters, handsomer every way and fully a month later than our own well known *Virginia*.

One of the best climbing plants now in flower is *Lonicera sempervirens* var. *fuchoides*. This is a decided improvement on the old evergreen climbing honeysuckle. The flowers are scarlet outside, with orange on the inside of the tube, the orange color turning to red as the flower gets old. It is a very profuse bloomer, flowering from every break.

Andromeda floribunda has its flower buds already set for next year, so far advanced that they seem apparently ready to open. It would seem that it should force readily. *Daphne cneorum* is now in bloom for the third time this year.

A climbing shrub that should not be overlooked is *Lycium Chinesium*, known as the Chinese Matrimony Vine. The flowers are small and purplish in color. The beauty of the plant consists in its long delicate pendent branches and the wealth of scarlet berries which adorns them, while at the same time it is thickly covered with flowers. Speaking of berries the *Viburnum opulis* is now very showy with its load of scarlet fruit, which is doubly valuable from the fact that they will remain, retaining their beauty till the buds break in the spring.

Standing out most noticeable among all the fruiting shrubs however is a novelty from near Tokio, Japan. It is the *Symplocos paniculata*, a shrub ten feet high and covered with racemes of oval berries about the size of huckleberries, but of a dazzling ultramarine blue in color. Such a color has never been seen on fruit before. A first class certificate of merit was awarded to Mr. Dawson for this shrub by the Mass. Hort. Society August 31.

WM. J. STEWART.
Boston, September 2.

Canna Flaccida.

I was very glad to read Mrs. Thomson's note in the last number of the *AM. FLORIST*, recommending *Canna flaccida* to the florists of the U. S. All that she says about its beauty and desirability I can most heartily endorse. As to its

appearance I must beg leave to differ. To me the flower looks more like the blossom of an iris. In fact I feel sure that any one familiar with the different varieties of iris upon seeing a *Canna flaccida* bloom for the first time would be almost certain to suppose it was a species of iris. The flower is very delicate, almost lacelike in texture and fades very quickly, opening about sunset and closing before noon the next day, hence is not very desirable for cut flowers. But where ever cannas are grown this species might be included and would add a pleasing variety, as the color is new in this family. W. C. STEELE.

Switzerland, Fla.

Diseased Asters.

What is the cause of the asters dying off so sudden when budded and seemingly very vigorous? Seem to be attacked in the stem close to the ground. The only visible marks of the disease is a brown or discolored spot on the stems. Have lost several every year. Tried on different soils. What is the best remedy to prevent it? F. A. D.

[We referred above query to Mr. M. B. Faxon, Boston, Mass., who grows the aster extensively, and who replied as follows: "Asters in this section have this season been badly attacked by the same disease that F. A. D. complains of. The disease is caused by a small worm which eats its way into the stem, killing the plant. There is no remedy that I know of, but fortunately as a rule not many plants in a bed are so attacked. I have lost many plants in this way, but the proportion has always been small. This insect does its work very quickly; a plant apparently all right one day being dead the next."]

Ants and Plant Lice.

The truth is not always on the outside. A person sees his plants wilting or blighting and notices ants running up and down the twigs or over the leaves, and at once concludes that the ants are the mischief makers. Often a still greater error is made. Plant or scale lice are seen and it is thought that the ants are parents to the lice. If we except the annoyance that comes from the visits of ants to the pantry, or their journeyings over the lawn where we wish to sit and rest, I think we may say that ants in our northern latitudes do us no harm.

Why then do we almost always find plants which are serving as a runway for ants infested with plant or scale lice, which latter by sucking the juices are a serious injury to the vegetation? The answer is not far to seek. The lice secrete a nectar—often as pleasant and delicious as the finest honey. The ants have a sugar tooth, and are not slow to find this delicious sweet. Indeed, the ants often watch over and care for these nectar-forming lice with as much solicitude as they show for their own young. In truth sometimes when danger threatens the ants will care for the lice before they attend to their own young. The ants show by their actions that their larder is dearer to them than their babies. In case of the corn root louse, Prof. C. M. Weed has shown that it is cared for by ants, and depends upon them in winter for its food and possibly for its survival.

We see then why ants gather on and about lice infested plants. For the same reason that the crow is attracted to the carrion, or the raccoon to the corn field.

It may be asked why the lice secrete such nectar. Animals do not usually form nutritious substances to throw them away. The plant stores up the albumen to nourish the germ. In no case is it probable that a nutritious product is formed except for a purpose. In this case the lice secrete the nectar to attract bees, wasps and ants, that these latter may frighten away bird or insect, that else would feed upon the lice. I have often seen this very thing illustrated. A fine linden just by our front door was sorely infested with scale lice (*Lecanium tilii*). We noticed that the sparrows and orioles were fast devouring the lice. Soon the lice commenced to secrete the nectar. The bees swarmed to the spot and the birds were soon frightened away. Thus the lice do not throw away the sweet, they use it to make and attract friends. Just as we never throw away sweet words.

These lice can all be killed by spraying violently with the kerosene and soap mixture, which is made as follows: To $\frac{1}{4}$ pound hard soap or one quart soft soap add one or two quarts of hot water and one pint of kerosene oil. Stir this violently till all is permanently mixed, then add six quarts of water. This is sure death to all plant lice, and very destructive to most scale lice.

In case ants are annoying on our lawns we can easily destroy them. Find their hills and by use of an iron rod or cane make a hole in the center to the bottom of the nest, now turn in a gill of bisulphide of carbon and quickly fill with clay and press this down so as to prevent evaporation. Soon all the ants will be dead. A. J. COOK.

Bedding Geraniums.

We believe the day has long since gone by when geraniums are looked upon as simply bedding plants, and that a variety should not be judged only from its bedding qualities. While we recognize the fact that there are some varieties that surpass others for bedding out purposes, there are also others equally as valuable for other purposes, such as winter blooming, for house culture, and also varieties for window boxes, veranda boxes, etc., and in their place surpass most of the bedding sorts for their individual beauty of color, shadings and form of flowers.

Noticing your request for reports on the best bedding sorts, I will submit a few notes, taken from my note book which I keep for my own reference, believing they may be of some value to your readers.

SINGLE VARIETIES.

Leon Perrault: This variety raised by Bruant, with brilliant scarlet flowers and trusses of immense size has taken the lead in the race for single varieties with us this year.

M. A. Godard: Sent out by Bruant in 1885; very dark red.

Perle: Raised by Lemoine, and is the very best white we have ever seen outside, being pure white in color, very free and a good healthy grower.

Mrs. E. T. Keim: Raised by W. A. Harkett, I believe, and is of dwarf habit and very free, pure white with pink eye.

Baron du Puynode: Belongs to the Bruant type, raised by Bruant in 1886; very large trusses and flowers on very stout foot stalks, color orange vermillion, with small white eye.

Alphonse Daudet: Lemoine's of 1887; very bright salmon.

Sam Sloan: Raised by Mr. Thorpe; dark red with crimson shadings.

Mon. Janssen: One of Lemoine's; very bright rose, base of petals white.

Mon. Alfred Mame: Very soft red, belongs to the Bruant race and is very fine.

Mrs. Lindsay: Raised by Mr. V. Burgevine, Kingston, N. Y., and is extra fine with us, very deep rose, base of petals white.

DOUBLE VARIETIES.

Heteranthe, commonly called Double Gen. Grant: This is with us far superior to Bruant, and the best of its color for bedding, while Bruant is the best in pots, having larger trusses and being a shade darker in color.

Mary Geering: Raised by Mr. Thorpe some years ago, and still takes the lead in its color, very soft rose pink, base of petals pure white.

Deruchette: Superb with us; pearly rose color, raised by Gerbeaux.

Gustav Widemann: Bruant's of 1884. Apricot with bright salmon shading.

S. A. Nutt: Raised by Mr. Thorpe. This I believe is the best dark red either as a pot variety or as a bedder yet offered, and it certainly has no equal with us.

Gloire de France: Raised by Lemoine, and the best of its color.

Les Huguenots: Silvery rose shaded lilac, on the style of Mon. Hardy.

Mon. Jovis: The best of the Mme. Hoste type.

Palmengarteninspektor Siebert: Raised by Pfützner. Dark red with flaming scarlet shadings, dwarf and very free.

Emile de Girardin: Best of the shade.

Geoffroy Saint Hilaire: Dark cherry red shaded with violet. Raised by Bruant.

L. Contable: Raised by Rosain; deep pure rose, very free, trusses medium size.

La Favorite: Lemoine's; is the best double white with us, being a good healthy grower and pure white in color, excelling the variety Le Cygne.

Richard Brett: Has no equal in the orange scarlet class outside. Raised by Mr. Thorpe.

Conseiller Galy: Bruant, 1883; clear brilliant currant color.

Mon. Francois: Lemoine, 1886; cinnamon red.

Centaure: Lemoine, 1887; brilliant rose, immense sized trusses.

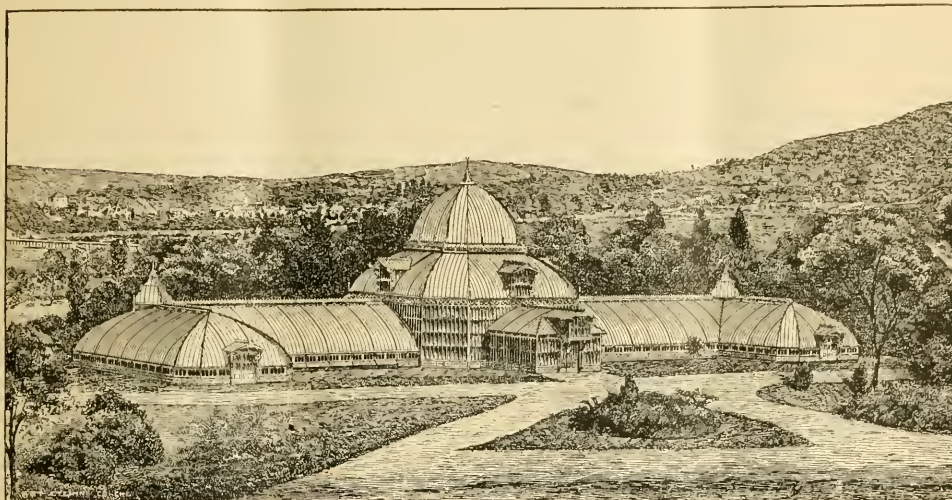
Other varieties that have received marks of merit are as follows: Fratelli Ferrario, Mary Hill, Camen Jaquet, Heros d'Usagara, Sergeant Blandan, A. Dupre, M. Adrien Corret, Mon. Press, Bastien Lepage and Le Cid; these are all semi-double varieties.

During the past few weeks we have had hot and very dry weather, and being unable to water our geraniums by hand the list above represents varieties that have had a very severe test, and comprises only such varieties as are a blaze of flowers, and have held their foliage up to date. W. P. SIMMONS & Co.

Geneva, O., Sept. 3, 1889.

Experimenting.

"We are taken in so often by advertisements that it makes us shy of buying," writes one of your subscribers. Much of the pleasures of horticulture are obtained in experimenting, and everyone who experiments should be prepared for losses and disappointments; in fact these unpleasantnesses are part of the joys of gardening, they are experience—personal knowledge that cannot be eliminated from the mind, that no theory or book can controvert, you "have been there and you know." Unless you can afford it, stick to the things you know person-



THE CONSERVATORIES OF GOLDEN GATE PARK, SAN FRANCISCO.

ally; at the same time if you can spare a dollar or two a year, get something new and which you think may be valuable to you in your business, but don't build any hopes upon it, if it turns out well it is gain, if ill, it is experience. Knowing of whom to buy and whom to trust is business intuition. And if there is anything you don't know about but wish for information regarding write to the FLORIST.

W. F.

New York Notes and Comments.

The enterprising street vendors who used to sell the "alligator tree of Florida," otherwise liquidambar, are now out with a new novelty. They are selling bunches of a fleshy green plant, strongly scented, as the "Texas musk plant," or any other title that suggests itself. Examination shows it to be common samphire (*Salicornia herbacea*), which may be gathered by the bushel all along the coast. It is artificially perfumed, probably by the same stuff which turns everyday parsnips into "attar of rose seed" in the hands of these same sellers. This rechristened samphire sells well, too; truly, there's nothing like a little humbug. Probably many of the people who buy it would not think of wasting their nickels on familiar garden flowers, which have something besides oddity to recommend them.

Just now there is little besides gladiolus to be seen in the florists' windows, but a big bunch of herbaceous sunflowers recently noted were very handsome, and a little unusual. Casual observers took them for chrysanthemums. The flower rather suggests a very double China aster in size and shape; the color is the usual deep golden yellow. Really a very handsome thing, not so coarse as the ordinary double sunflower, but the plants make a handsome group for the garden, and the flowers are really useful when cut.

If the cyclamens are not popular this coming winter a good many people will be sorely disappointed. A great many of these plants are being grown, and a good many very fine ones. Poor strains are not worth growing, and beauty of foliage is every bit as necessary as beauty of flowers. The really good strains have leaves as well marked as *Begonia Rex*. Another important desideratum is neat habit; limp or straggly growth ruins the plant. The ideal cyclamen for the trade should have well marked leaves of good substance, growing closely, and large flowers on long stiff stems. Many other-wise good plants are lacking in substance. The rich dark flowers seem to be especially liked. They ought to be popularized among small amateurs as well as in the choice city trade, for there is no doubt of their excellence in a room, as well as in a small greenhouse.

Regarding the national flower, the writer has received opinions from so many hundreds of different sources that the subject is becoming a veritable nightmare. People seem usually to want their own favorite flower, without any regard to race, color or previous condition of servitude. It seems as if the Nova Scotians had rather got ahead of us when they appropriated the Mayflower, which is so closely connected with American history, though its comparatively narrow range prevents it from being representative of the entire country. One correspondent of the *Philadelphia Times* speaks of this plant as being disqualified, because it is also found native in Ireland, but she must confound it with the true arbutus or strawberry tree. *Life* suggests the shamrock as being very appropriate, and quite as American as many of our most patriotic citizens. Such candidates as violet, rose, pansy or laurel are quite out of order, though the last named has many supporters, who probably confound the true laurel with our handsome

native kalmia. According to the opinions received, the largest support is given to the golden rod, while the sunflower is a good second. Of course our most important native plant is really the tobacco, and a handsome thing it is, too, but this is 'way behind in the race. Somebody suggests the toothsome peanut, the maize or the cotton. But nearly 70 per cent of the opinions received by the writer favor the golden rod, the remaining 30 per cent scattering all over the garden flora. There is hardly likely to be any one flower universally recognized without legislative action in the matter.

This summer the fountains in the squares and parks of New York are beautified by aquatic plants, and though they are not always up to the mark they are a very great improvement. The lotus looks well, and the same may be said of several exotic lilies. It would add to the usefulness of these ponds if there was a greater display of native aquatic plants; people are as a rule very unfamiliar with them, though there are plenty of showy things among them. Certainly the taste for aquatic plants is increasing, and he is a wise grower who prepares for it. Generally speaking, there has been but little in the way of trade novelties this season, and we have gone several months without hearing of a remarkable new rose—something unusual.

That *Souvenir of Wootton* will be thoroughly tried next winter; it is already viewed with much favor. Mr. Roehrs expects to do a good deal with his new hybrid. It looks as if rather more large roses would be grown next winter.

Several growers have had rose houses in full bloom during June and July, especially *Perles*—not just crops of stragglers, but the full bloom same as midwinter. It may pay or it wouldn't be done, yet one would hardly expect much money in it.

EMILY LOUISE TAPLIN.

Boston.

Mr. Hugh Dickson, representing Alex. Dickson & Sons, of Belfast, Ireland, has been spending a few days in Boston.

Some of our prominent rose men are growing Duchess of Albany under number on the sly for next winter. It is a good rose.

The annual exhibition of the Mass. Hort. Society will be held September 17, 18, 19, 20 at Horticultural Hall. Premiums in the fruit and vegetable department amount to about \$950; for flowers and plants \$500.

W. C. Wilson's annual sale will take place on Wednesday, September 18, at the auction rooms of Sam'l Hatch & Co. On Friday, September 20, F. Sander & Co. will have an orchid sale at the same place, and September 25 R. J. Halliday comes with palms, azaleas, etc.

The weekly Saturday shows at Horticultural Hall closed with that of August 31. There have been some remarkably fine displays of specialties. Mr. J. W. Clark's gladioluses, L. W. Goodell's dianthus, phloxes and zinnias, Geo. S. Tuttle's pompon dahlias and R. & J. Farquhar's collection of asters have been equal to the best ever seen here.

The annual meeting and election of the Gardeners' and Florists' Club of Boston was held on Tuesday evening, September 3. Unusual interest attached to the choice of officers in view of the proposed meeting of the national society in Boston next year. Officers were elected as follows: President, A. P. Calder; Vice-President, W. E. Doyle; Secretary, J. J. Cunningham, Roslindale, Mass.; Treasurer, P. Welch; Librarian, W. J. Stewart; Executive Committee, L. H. Foster, J. H. Morton, F. L. Temple, Robt. Farquhar.

Labor Day was taken advantage of by Mr. Edward Hatch, the auctioneer, to invite a party of his florist friends to his summer cottage at Scituate. It was the "same old crowd" of merry boys that is always on hand in Boston when there is a good time in prospect. And a good time it was. Steamed clams by the bushel, lobster salad, baked potatoes and "fixins" including good appetites were there, and full justice was done to Mr. Hatch's hospitality. The airy piazza facing the sea furnished a comfortable place for those who wished to try their fortunes at "high, low, jack," and the rocky beach supplied all the requisites for a bowling match or a rough and tumble race. It was a sight to melt the heart of a graven image to see such a row of 200-pounders as Norton, Ewell, Cox, Rough and Mathieson indulging in a potato race. It can not be described. It should be seen to be appreciated.

The Buffalo convention has been the talk of the town since the Boston delegation came home. The universal verdict is that it was the most enjoyable occasion of the kind they ever participated in. The trip out was a memorable one. The climax was reached when at 10:30 p. m. at Rotterdam Junction the cars containing the New York delegation were attached to the train. The New York delegation will probably remember the occasion for many a day, and the representatives of the Hub are not likely to forget it. Unstinted praise for the Buffalo brethren for their excellent management and their open handed hospitality is heard every where. The business part of the convention comes in for its full share of praise and the trip to Niagara was all that had been promised for it. Coming home many of the delegates took the opportunity to stop off at Rochester

to see Geo. Savage, who welcomed them with his accustomed heartiness and showed them through his superb collection of orchids. Many also stopped at Albany to pay their respects to the grand old man Mr. Wm. Grey, who with his right hand man, Mr. Goldring, was ready to welcome and to entertain. Louis Menand also received many visitors, who came away full of enthusiasm over their reception. The standing of the Boston delegation was materially heightened by the presence in the party of Mr. Jos. A. Dirwanger and lady, of Portland, who made the occasion their bridal trip.

W. J. S.

Radiant Heat.

The late Commodore Vanderbilt was sometimes asked how it happened that he always got the best of his rivals in Wall street. The old gentleman was wont to reply "them dashin' young fellars don't see things as they be." In dealing with scientific questions it is particularly necessary "to see things as they be." There are certain aids to accurate vision that it will not do to dispense with. We must know the meaning of the words we use; we must understand the nature of proof and be able correctly to estimate the value of evidence; we must use correct mental processes and think with precision; sound elementary knowledge of the subject under discussion is desirable. Common sense and common observation have no place in science, in that connection they generally mean uncommon ignorance.

The article upon overhead heating on page 547 affords an excellent illustration of the confusion that is sure to follow the neglect of these self-evident truths.

Quotation marks should always contain the exact words used, misquotation is intolerable. I did not use the words quoted at the beginning of Mr. Whittall's article, nor anything like them. Of course we have to help out the sun's heat sometimes, but that is a secondary matter; if the sun did not furnish us with any heat at all we could get on just as well, using the heat stored up for us ages ago. Our flowers would cost more and that is all. It is the light of the short winter days that we are after, and we build and heat our houses in order that we may avail ourselves of it. From a purely commercial standpoint the long winter nights and the cold storms are quite as necessary as the sun's light, for in successfully meeting these adverse conditions lies the very foundation of the business. It is the fact that we do not and can not imitate nature, but raise our flowers in spite of her, that makes the trade possible.

The sun's energy reaches us in the form of rays, some of which are visible and some not; we can see the light rays, but not the heat or chemical rays. These rays are identical in every respect, except in the frequency of their vibrations, that is, the light rays if they vibrated slower or faster would become heat or chemical rays. It follows from this that if the heat does not come from above but is generated at the surface of the earth the same must be true of the light. We can see, however, that it is not so. Furthermore, about one half of the sun's heat is absorbed by the atmosphere and does not reach the earth at all.

A slight acquaintance with the properties of the burning glass or lens would have saved Mr. Whittall his unlucky illustration. The lens has the effect of bringing the sun nearer the earth, just as a spy glass has the effect of bringing dis-

tant objects nearer the eye; all the experiment shows is that if the object placed in the focus was moved a certain distance nearer the sun it would take fire without the intervention of the lens, in other words the nearer you get to the sun the hotter it is.

The comparison of radiant heat with the heat generated by the impact of solid bodies shows great unfamiliarity with the subject. But it is useless to prolong a discussion which can be finally settled by quotations from two of the most distinguished astronomers of the day.

Prof. Newcomb says: "In the time of Herschel it was not deemed necessary that the sun should be a very hot body, the heat received from his rays being supposed by many to be generated by their passage through our atmosphere. This idea is still entertained by many intelligent persons who have not made themselves acquainted with the laws of heat discovered during the present century, we may therefore remark that it is completely untenable."

Prof. Young says: "The energy radiated from a heated globe is found to be alike in all directions, and wholly independent of the bodies which receive it, nor is there the slightest reason to suppose the sun any way different in this respect from every other incandescent mass."

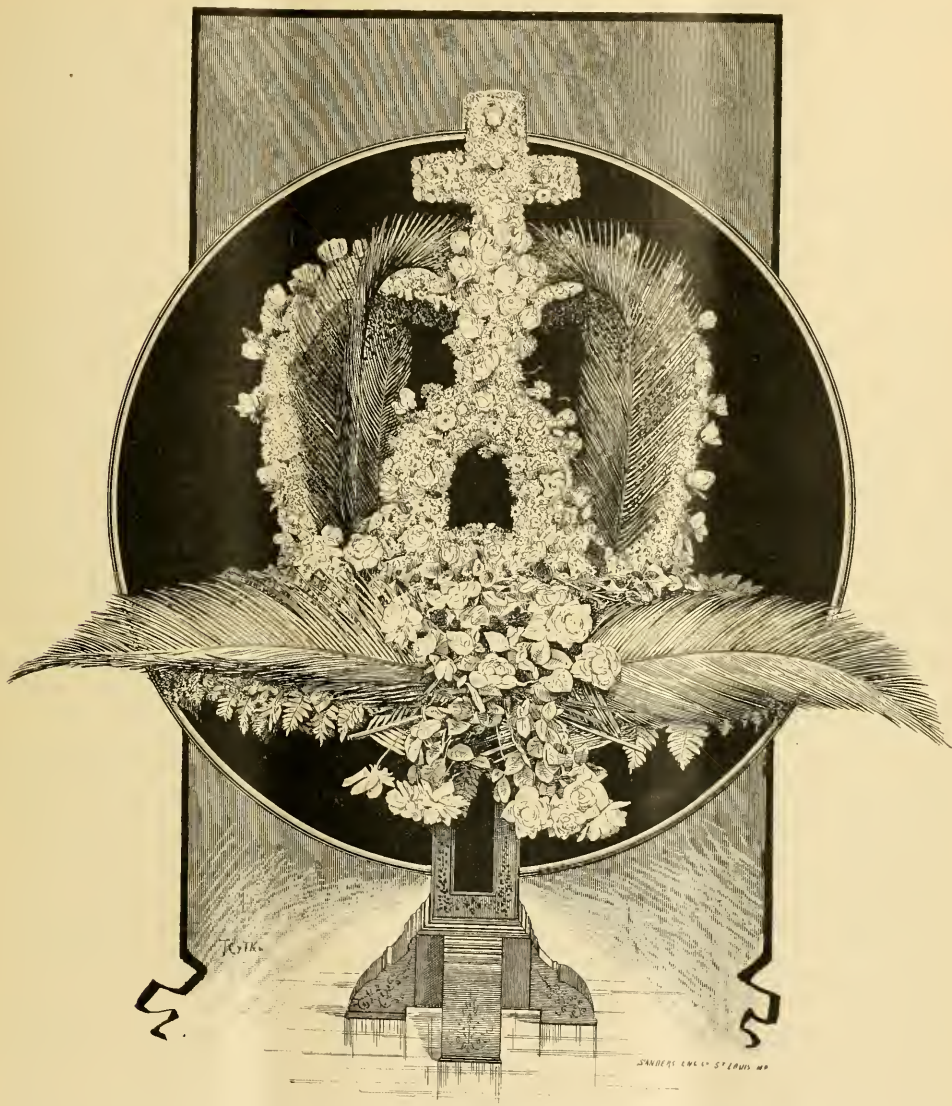
Mr. Whittall says, in effect, the sun is in a state of extreme heat, that heat comes to us in the form of waves, therefore it does not come from the sun at all, but is generated at the surface of the earth. This is not very brilliant reasoning. All this confusion seems to arise from Mr. Whittall's loose way of using words without regard to their recognized meaning. The word "generate" has a very precise meaning and can be applied in this case only to the original source of heat which is the sun; the word "absorb" is used by science to describe the effect when the sun's rays are intercepted.

In speaking of objects radiating back into space their surplus heat, inanimate objects were meant; every schoolboy knows that animals and plants are not on the same footing as sticks and stones. Animals and plants store up heat for future use. It ought not to be necessary to explain a detail like this.

The advocates of overhead heating do not found upon theory, but upon experiment. It is natural when anything new and unexpected turns up to look for the cause, several reasons have been given for the apparent superiority of this method, their value can not be estimated until further experiments have been made. It is possible that the removal of the 4 inch pipes from under the benches may have as much to do with it as anything.

The statement that certain rays from a hot stove out of doors would be lost to the earth is an error. They would be absorbed by the atmosphere and help keep the earth warm. Mr. Whittall implies that the statement in quotation marks in the last paragraph is the one made at the convention. Neither that statement nor anything like it was made. I supposed that the applause at the convention was genuine; the allusion that I made to it was "writ sarcastic," as Mr. Whittall would doubtless have discovered if he had not been blinded by grief.

Those familiar with the amenities of scientific controversy would smile at the idea of any one being offended at a little harmless chaffing. Theories are legitimate objects of attack with any weapon that comes to hand. And when a last



FLORAL TRIBUTE SENT TO THE FUNERAL OF THE LATE HENRY SHAW, OF ST. LOUIS, BY PRESIDENT JORDAN
IN THE NAME OF THE SOCIETY OF AMERICAN FLORISTS

century's theory gets out of its grave to raise its antiquated and hoary head in the midst of a society so progressive as that of the American Florists and, worse still, receives a welcome, some of us will feel constrained to laugh a little, even if it does bring tears of distress to the eyes of soft-hearted and sympathetic members.

Framingham, Mass. L. WIGHT.

The Double White Pyrethrum.

I have about four rods of this beautiful plant; I place it on the edge of my flower-

bed. It generally begins to bloom about the last of May or first of June, but this year we had everything frozen down to the ground in the last week in May, and again in the first week in June, so the pyrethrums didn't bloom till the second week in June. The first flowers are the finest; they run from three to four inches across. I sell the flowers but not the plants. There is not much demand for plants here and consequently prices rate low. I have never found any seed upon my plants. I propagate them by division. When the plants get large I

take them up and break up the clumps into many parts and replant.

Fond du Lac, Wis.

W. E. A.

A COPY of the proceedings of the fourteenth annual meeting of the American Association of Nurserymen held at Chicago in June last, has been received from Secretary Charles A. Green, Rochester, N. Y. It contains 116 pages of essays and discussions of very great interest to every nurserymen

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THE AMERICAN FLORIST CO., Chicago.

SCIENTIFIC EDUCATION FOR FLORISTS.

At the Buffalo convention Mr. Hill endeavored to make plainer his position in regard to a scientific education for florists. What he desired to see was a training school to which young men could be sent to receive instruction in scientific matters bearing upon horticultural practices, after having first had some years of practical experience. He aimed at a combination of the practical and theoretical.

Mr. Henderson expressed the belief that the project was impracticable from the fact that there were no competent professors who had any practical knowledge of horticultural matters. To which Mr. Hill replied that he believed that the Society of American Florists had brains enough among its membership to supply the deficiency noted by Mr. Henderson and that with proper effort the society could induce the government to interest itself and make the required appropriation.

In the main we agree with Mr. Hill. Such a school would be a grand good thing and we do not doubt that qualified teachers could be found if the field was open to them. Further, we believe that by earnest and persistent effort the object may be finally obtained. Certainly no harm is done by agitating the subject and nothing will be accomplished without making a start. And there is no time like the present.

In the mean time every young florist in the land has the accumulated knowledge of centuries stored up for him in books. No science bears so directly upon the practical workings of our business as that of botany. How many young florists have mastered even the elements of this very interesting, and to them, particularly valuable science? We fear that they are not nearly so numerous as they should be. If your boys and girls have not had the advantage of instruction in the elements of botany you can make them no better present than a copy of Gray's *How Plants Grow*. Once get them interested in this charmingly written little book and if they have the qualities of mind which will make a suitable foundation for a scientific education they will educate themselves to a plane where they will be fit candidates for such a school as that desired by Mr. Hill and all of us. Once excite curiosity to know the cause of the effects which come under daily notice, supplying the books necessary to give the desired information and self-education has commenced. And facts which are dug out by the student in this way are fixed for more permanently in his mind than when the information is forced upon him.

Follow the methods employed by the lamented Agassiz. Give the pupil a plant and tell him or her to note on paper everything about the plant which can be

described. The pupil is amazed at the number of parts which compose the plant and the innumerable details which combine to make up its characteristic appearance. His interest and curiosity is excited and he thirsts for further knowledge. This needs no training school, it can be done at home where the greenhouses contain a wealth of material all the year round. Let us not wait for a training school but lay the foundations for a scientific education at home.

CATALOGUE ILLUSTRATIONS.

The plan recommended by the committee on "Exaggeration of cuts in illustrated catalogues" at the Buffalo convention was referred to the Executive Committee with power to act upon the matter according to its best judgment. It therefore depends upon the nine good men composing this committee whether or not some decisive action shall be taken by the society to afford protection to the honest catalogue man from the unjust competition of the author of engravings which lie.

Mr. Craig tells us in his essay that catalogue cuts have been sent back to the engraver to have the flowers made larger and more of them on the plant, and we are convinced that catalogue cuts are frequently made simply from a description—that is the engraver is told to make a cut like one already in existence, "changing it so that it will look different, but make the flowers larger and more of them, as this novelty is an improvement on that sort."

It has been said that the Society of American Florists has no right to interfere with the business affairs of individuals, and that it is preposterous for the society to attempt to dictate to catalogue men as to what their catalogues shall contain. True enough. But the plan is not to dictate to any one. It is intended merely to provide a means whereby an honest illustration may receive due credit for its honesty. As the case now stands exaggeration has been so commonly indulged in that many buyers of plants discount all catalogue engravings. Surely this is an injustice to the man who uses an honest illustration and is an ever present temptation to him to forsake the conscientious course he has pursued. We must protect him from such unjust competition and encourage him in his honorable course. At present he is working under a disadvantage, which is in our power to remove. Shall we sit idly by and refuse to exert that power?

Regarding the statement that plants and flowers vary and that it is human nature to "put the best foot forward" we would freely accord the privilege to do so. A committee could judge only by the specimens submitted with the engraving and if the specimen was equal to the engraving the committee would be in duty bound to certify that the illustration was true to nature.

THE AMERICAN NATIONAL CHRYSANTHEMUM SOCIETY.

This society which was organized at the Buffalo convention of the S. A. F., should accomplish much good. The rapidity with which new varieties of chrysanthemums are being originated and imported, many of doubtful value and in some cases the same variety under two or more names, is fast increasing our list of varieties to enormous proportions and some wise and systematic weeding must be done. And above all future

introductions should be admitted to our lists only after having been passed upon by some competent judges.

Certainly this can be accomplished in no better way than through a national society, which includes among its membership all the chrysanthemum specialists in the country and with such a practical and thorough plantsman as Mr. John Thorpe at its head. We believe that this society will award certificates of merit to new introductions so carefully and wisely that a variety so certificated will be received by the trade and the public with confidence that it possesses real merit, and that a failure to secure such a certificate will be equivalent to an admission of unworthiness to be classed as an advance on existing kinds.

We hope at no distant day to see an exhibition given by this society where introducers of new varieties may show them and have them passed upon by a committee of the society, who shall award certificates of merit to all which shall be deemed worthy and a prize of some kind to the variety which shall be considered the best introduction of the year. Why not make a start by having an exhibition of the kind this year in connection with one of the chrysanthemum shows in eastern cities?

The society should also publish a catalogue of all worthy existing varieties, properly classed and accurately described and give raiser's name and year of introduction where known. This should appear annually in future, adding the new introductions during the year and any new information which has been acquired regarding varieties previously catalogued, and dropping out varieties which have been superseded by new introductions of superior merit of the same class, color, etc.

Surely a society which can—and undoubtedly will—do so much valuable work deserves our earnest support, and it is to be hoped that every one interested in the chrysanthemum will make no delay in adding his name to the membership roll. The annual dues have been fixed at \$2, which entitles to all privileges of the society, and may be forwarded to Edwin Lonsdale, secretary, Chestnut Hill, Philadelphia, Pa.

"AS A SOCIETY we must set our faces resolutely against any practice that shall tend to destroy the dignity, or that may reflect dishonor upon the profession. If we shall refuse to act on these moral questions that confront us, then, as a society, we are doomed, and we shall deserve no better fate." The above from the address of President Hill at the New York convention should sink deep into the mind of every member of the Society of American Florists. If we "refuse to act," Mere condemnation amounts to nothing, *acts* are what accomplish results.

IT HAVING COME to our knowledge that the name of the AMERICAN FLORIST has been used as having indorsed certain individuals as well as certain plants or other stock offered by various parties, we desire to say that the FLORIST does not recommend any person or plant, and in no way indorses the opinions expressed by its correspondents. Readers will do well to look closely into the statements of any individuals who claim that they or their specialties are in any way especially indorsed by the AMERICAN FLORIST.

LET US NOT be too quick to cry down a project as impracticable because there are difficulties to be met and obstacles to be overcome before the sought-for benefit can be enjoyed. While some may be too

radical and occasionally visionary, others are too conservative, too closely wedded to old methods. Let us not be too radical nor too conservative, but endeavor to strike that happy medium which is productive of the most valuable and lasting results.

IT SEEMS TO US that the word "objectionable" as applied to the practice of "renaming plants to suit the seller's purpose" falls considerably short of the mark. The practice named is robbery pure and simple, and the men that practice it are unqualified swindlers. Let us express our meaning in terms which can not be misunderstood.

ANTS AND PLANT LICE.—Feeling that the note appended to J. H. Wade & Co.'s query in last issue was not as complete and explicit as was desirable on such an interesting subject, we have secured from Professor Cook a few notes on the relations which ants and plant lice bear to each other and which appear in another column.

THE AWARDS to exhibitors at the Buffalo convention had not all been made when our list of exhibitors was prepared for last issue. See complete list in another column of this issue.

THE LACK OF TIME for discussion of Mr. McMillan's paper at Buffalo was generally regretted. Some notes thereon have reached us and will appear in next issue.

THOS. YOUNG, JR.,

WHOLESALE FLORIST

20 West 24th Street,

NEW YORK.

LILY OF THE VALLEY

And the Choicest **ROSES** for the fall and winter season.

W. S. ALLEN,

WHOLESALE DEALER IN CUT FLOWERS,

36 EAST 23rd STREET, NEW YORK.

ESTABLISHED 1877.

Price List sent upon application.

W. F. SHERIDAN,

Wholesale and Commission Dealer in CUT FLOWERS,

NO. 50 W. 30TH ST., NEW YORK.
Orders to be shipped will receive prompt attention.

EDWARD C. HORAN,

WHOLESALE FLORIST,

36 WEST 29TH STREET,

The Bride, Mornet,
and Am. Beauties,
SPECIALTIES. NEW YORK.

ROSS & MILLANG,

WHOLESALE FLORISTS,

No. 1168 Broadway,

Bet. 27th & 28th Sts., NEW YORK

Wholesale Markets.

Cut Flowers.

	BOSTON, Sept. 9.
Roses.....	\$2.00 @ \$4.00
Carnations.....	.50 @ 1.00
Gladioli.....	2.00 @ 4.00
Asters.....	1.00
Tuberose.....	.50
White Japan Lilies.....	5.00
Valley.....	6.00
Smilax.....	12.00
Adiantum.....	1.00
	NEW YORK, Sept. 9.
Roses, Perles, Niphetos, Souvs.....	\$2.00 @ \$3.00
" Mornets, Brides, Cousins.....	2.00 @ 3.00
" Goutiers, Bennets.....	1.00 @ 2.00
" La France.....	2.00 @ 4.00
" Am. Beauty.....	5.00 @ 15.00
" Bon Silene.....	1.00
Smilax.....	15.00
Carnations, long.....	1.00
Carnations, short.....	.50
Lily of the valley.....	8.00
Adiantum.....	.75 @ 1.00
Roses in large quantities \$10 per 1000.	

	PHILADELPHIA, Sept. 9.
Roses, Perles, Niphetos.....	\$2.00
" M. Guillots.....	2.00
" La France.....	2.00 @ 4.00
" Pierre Guillots.....	4.00 @ 5.00
" Am. Beauties.....	8.00
Carnations, long.....	.75 @ 1.00
Carnations, short.....	.50
Gladioli.....	2.00 @ 3.00
Asters.....	1.00
Gladioli.....	2.00 @ 3.00
Lily of the valley.....	8.00 @ 10.00
Smilax.....	15.00
Adiantum.....	1.00

	CHICAGO, Sept. 11.
Roses, Perles, Niphetos.....	\$3.00 @ \$4.00
" Bon Silenes.....	1.00 @ 2.00
" Am. Beauties.....	10.00 @ 12.00
" La France.....	2.00 @ 6.00
" Mornets.....	4.00 @ 6.00
" Brides.....	5.00 @ 6.00
" Bennet's Duke.....	4.00 @ 5.00
Carnations, short.....	1.00
Carnations, long.....	1.25 @ 1.50
Gladioli.....	1.00 @ 12.50
Smilax.....	15.00 @ 18.00
Gladioli.....	8.00 @ 10.00
Daisies.....	.30 @ .50
Pansies.....	.50
Asters.....	1.00 @ 2.00
Sweet Peas.....	2.00

WM. J. STEWART, Cut Flowers & Florists' Supplies

WHOLESALE

67 BROMFIELD ST., BOSTON, MASS.
Mention American Florist.

LaRoche & Stahl, Florists & Commission Merchants

—OF—

CUT FLOWERS.

1237 Chestnut Street, - - PHILADELPHIA.
Consignments Solicited. Special attention paid to shipping.
Mention AMERICAN FLORIST.
Mention American Florist.

CHAS. E. PENNOCK, WHOLESALE FLORIST

38 So. 16th Street, Philadelphia, Pa.

JOHN M. HUDSON,

WHOLESALE

Commission Dealer in Cut Flowers,
1225 Market St., ST. LOUIS, MO.

Quick sales and prompt returns guaranteed. Consignments solicited.

Mention American Florist.

HAMMOND & HUNTER,

Wholesale dealers in

Cut Flowers and Florists' Supplies
61 West 30th Street, NEW YORK.

SMILAX ONLY. WHOLESALE AND RETAIL AT ALL SEASONS.

F. E. FASSETT & BRO., Ashtabula, O.

VAUGHAN'S CUT FLOWER DEPT.

88 State St., - CHICAGO.

Receives Fresh Flowers morning and evening DAILY.

Send your orders to the above address, where they will be attended to properly.

REMEMBER.—When any one in Chicago has flowers to sell, VAUGHAN has also.

WRITE FOR QUOTATIONS.

KENNICOTT BROS., WHOLESALE FLORISTS.

TO THE TRADE ONLY.

ALL CUT FLOWERS IN SEASON.

Write for price list. Consignments solicited.

WIRE-WORK made to order, and in stock.

27 Washington Street, CHICAGO.
TELEPHONE NO. 466.

CHAS. H. FISK, Wholesale Florist

AND DEALER IN

FLORISTS' SUPPLIES,

116 Dearborn Street,
CHICAGO,

Store Open Day and Night.

I keep a full stock of

WIRE DESIGNS

of superior workmanship and at lowest prices. Extra pieces of any description made to order on short-est notice. Send for Catalogue.

A. S. KIMBALL, WHOLESALE CUT FLOWERS,

170 Lake Street, CHICAGO.

I make a specialty of shipping, and have increased facilities for filling orders promptly and satisfactorily.

N. F. MCCARTHY & CO., WHOLESALE FLORISTS

and Jobbers in Florists' Supplies,

1 MUSIC HALL PLACE, BOSTON, MASS.

Also entrance from Hamilton Place through Music Hall.

We keep a large supply of Fancies and Carnations always on hand. Return telegram sent immediately when unable to fill orders.

—Auction Sales of Plants Spring and Fall.—

WELCH BROS., WHOLESALE FLORISTS

155 Tremont Street, BOSTON, MASS.

We make a specialty of shipping choice Roses and other flowers, carefully packed, to all points in Western and Middle States.

Return Telegram is sent immediately when it is impossible to fill your order.

CUT FLOWERS

The choicest Cut Flowers at lowest market rates shipped C. O. D. Telephone connection. Use A. F. Code when ordering by telegraph. For prices, etc., Address,

J. L. DILLON, BLOOMSBURG, PA.

The Seed Trade.

SEED TRADE ASSOCIATION.

H. W. JOHNSON, Philadelphia, president; ALBERT M. MCCULLOUGH, Cincinnati, secretary and treasurer. The eighth annual meeting at Saratoga Springs, N. Y., June, 1899.

BLUE GRASS SEED is a short crop.

THE ONION SET market opens low.

TIMOTHY AND CLOVER are on the decline.

NEARLY ALL garden seeds are likely to be lower.

POTATOES are a short crop in New York and Minnesota and rotting in New England.

SEEDSMEN passed through Chicago: J. Comont, London; T. Webster, W. C. Langstaff, T. C. Wendell, of Plant Seed Co.

News Notes.

COLORADO SPRINGS, COLO.—S. D. Bradford has added a new rose house 100 x 20.

SCRANTON, PA.—G. R. Clark & Co. will give a chrysanthemum exhibition at the Scranton City Guard Armory November 6 to 9.

ROCKFORD, ILL.—Melcher & Son have succeeded Wm. Melcher. They are building this season two new houses, one 20x100, the other 13x100.

SPRINGFIELD, MASS.—At the chrysanthemum show of the local horticultural society to be held November 14-16, premiums to the amount of \$250 are offered, competition open to all.

CINCINNATI.—H. L. Sunderbruch and family are slowly recovering from serious injuries received some weeks ago in a railroad accident. Mr. S. had his shoulder dislocated and a few bones broken; his little boy got off with a broken leg and Mrs. S. with a few bruises.

DETROIT.—The Detroit Journal announces that it has contracted for 2,000 Dutch hyacinth bulbs which will be distributed to children who will give the bulbs the necessary care to bloom them. Pots will be supplied with the bulbs and when the plant is admitted for exhibition at the spring show to be given under the auspices of the Journal the child will be given a free admission ticket.

NYACK, N. Y.—H. E. Blauvelt has this year built three rose houses, two 100 x 22 each and one 100 x 10. Mr. Winterbottom has sold his greenhouses to Mr. Mendle who is growing carnations mainly. Daniel Lynch has built one rose house 100 x 16, heated by hot water. John Foley, formerly with A. C. Tucker, has built two houses 130 x 18. H. G. Newton has leased his houses to his foreman M. Barry. Roses are growing finely and promise well for the coming season.

READING, PA.—Florist Joseph B. Moore has applied for a patent on a crude oil burner of which great things are expected. With this burner it is claimed that steam can be raised in 15 minutes by merely turning on the oil and applying a match, but in order to facilitate matters an air pump is used to furnish the pressure that is afterwards produced by the steam which passes to the burners in conjunction with the oil. The Reading Herald states that during a recent trial steam was raised in 8 minutes and in 15 minutes

the gauge registered 15 pounds pressure, and that 1500 feet of pipe were filled with steam, and the pressure held an hour by burning three gallons of oil (costing less than 2 cents a gallon).

A LITTLE BOOK in the Spanish language bearing the title "Cultivo de los Rosales en Macetas, traducciones hechas por D. Mariano Vergara" has been received. Having no Spanish scholars on our staff we are unable to appreciate its undoubted excellence.

R. F. M.—We are unable to name the insect which infests your La France roses, and recommend that you send specimens to Prof. C. W. Riley, Government entomologist, Washington, D. C., who will undoubtedly identify it for you. But pack better than the specimens sent us as they were badly crushed. We shall be pleased to know the name of the insect as given by Prof. Riley.

GERANIUM SOUVENIR DE MIRANDE.—Among the cut blooms of new geraniums exhibited by W. P. Simmons & Co., Geneva, O., at the Buffalo convention those of the new French variety Souvenir de Mirande attracted instant attention. The flowers are single, the lower petals a rosy carmine fading to white at the base, while the upper petals are white merely tipped with carmine. A most striking and handsome flower and very distinct from any previous introduction.

SITUATIONS, WANTS, FOR SALE.

Advertisements under this head will be inserted at the rate of 10 cents a line (seven words) each insertion. Cash must accompany order. Plant ads. not admitted under this head.

SITUATION WANTED.—By German gardener and florist; 10 years' experience; single; large private place preferred. J. H. care American Florist.

SITUATION WANTED.—By single man, age 34, 7 years' experience in florist business. Good references. Address A. H. O. care American Florist.

SITUATION WANTED.—By practical florist and grower; first class rose, carnation and violet grower; now disengaged. Good references. Address H. W. P. O. Norwich, Conn.

SITUATION WANTED.—By married gardener and florist, thoroughly experienced in all his branches. Address GEO. J. ANDERSON, 73 Sheffield St., Allegheny City, Pa.

SITUATION WANTED.—As gardener in private family; thoroughly understands his duties in all his branches. Well recommended. Address GEO. BARTOLOMEV, Batavia, Kane Co., Ill.

SITUATION WANTED.—By a first class gardener and florist, German, married, with small family, as a private gardener. Address GEORGE C., Florist, Flatbush, Kings Co., L. I., N. Y.

SITUATION WANTED.—By an Englishman as gardener. Have had good practice in cut flowers; also plant growing. 11 years in last place. Apply to WELCH BROS., 163 Tremont St., Boston, Mass.

SITUATION WANTED.—By a practical and trustworthy man, as florist and gardener. Rose-growing a specialty. References. Address JAS. P. HENNETY, Oklaide, Suffolk Co., N. Y.

SITUATION WANTED.—As foreman by a respectable young man, age 28; competent in the management of glasshouses, vegetable garden and pleasure grounds. W. FLETCHER, Jenkintown, Pa.

SITUATION WANTED.—A first class middle aged gardener and florist is open for engagement. Not of references, commercial or private. Address CHAS. SCHAEFER, 254 Glenwood Ave. E. Orange, N. J.

SITUATION WANTED.—By a single man as head gardener on private place; first class plantsman; 16 years' experience; age 32; speaks English and German. HANS SCHWALZ, S. Yacinebe, Quebec, Can.

SITUATION WANTED.—German gardener, age 37. Perfect in all branches of florist business. Open to do any kind of work belonging to a number one florist. Address HEIMANN KRUEGER, care Louis Rorer, Evansville, Ind.

SITUATION WANTED.—By sober and industrious man, age 27, as private gardener and commercial place. Have 6 years' experience in garden and greenhouse work. Address Wm. HELLMANN, P. O. box 350, Oak Park, Ill.

SITUATION WANTED.—By the list of October by a young competent florist, age 24, single, is foreman in commercial place; has long experience and extensive knowledge in orchid growing and general greenhouse work; is also a good propagator of greenhouse and stove plants. Best of references. Wages expected \$40. Address C. care American Florist.

SITUATION WANTED.—By practical rose grower who devoted all his lifetime to improve culture of roses; also very capable in growing all kinds of plants for cut or bedding. Single, age 33, French. Anyone wishing such a man, please address E. LEFEVRE, 408 S. Clark St., Chicago.

SITUATION WANTED.—By an Englishman as expert gardener; thoroughly understands the trade in all its branches. First class propagator and plant grower. Had great experience in building glass houses, and understands heating them in all cases and can fix them up. Not of kind of work. Private or commercial. Have been in some of the best gardens in England. Address CHAS. B. BURNETT, Central Valley, Orange Co., N. Y.

WANTED.—A practical florist in Central New York who understands building greenhouses. A trustworthy and single man preferred. Address K. care Vaughan's Seed Store, Chicago.

WANTED.—A first class florist; a good propagator of roses, and one well up in the art of cut flower work. Will require first class reference. Will insure a good man a permanent situation. Address A. GIDDINGS, Danville, Ill.

WANTED.—By thoroughly practical florist, position as superintendent private or public establishment; good salary required. Best of references. Address ALPHA, care American Florist.

WANTED.—A working gardener to take charge of small greenhouse and garden, and also to do all other work connected with the same. Must be experienced, references required. Address Box 74, Richland Center, Wisconsin.

WANTED.—Gardener (commercial). A thoroughly competent gardener with experience in raising flowers and propagating fruit trees, grapes, house fruits and vegetables. No one need apply if not thoroughly competent. Answer with references. Must be able to do all the work. A worthy man can secure a most desirable situation. Address P. O. Box 125, Woodbury, New Jersey.

WANTED.—Experienced commercial florist as assistant foreman; married man preferred; one of executive ability; capable of handling orders and capable of taking full charge of order and packing department is required. The position of only first class men will be entertained who furnish good references. Address HENRY A. DREER, lock box 1618, Philadelphia.

WANTED.—A steady, industrious and intelligent young man, with some experience in raising house work as an assistant, to take charge of a small place. To the right man this is a good place, and the opportunity to not only secure a good salary, but to exchange the extreme cold of the north for a very delightful climate. Address, stating qualifications and wages expected, B. WOODRUFF, Macon, Ga.

WANTED.—A first class vegetable gardener, who has had an extensive experience in raising market garden produce. Wants a man to take charge of same and know how to work men. Must come well recommended as to character and ability. Must be a night threman for greenhouses, and a man to work in same. Only sober, industrious men need answer. Address care American Florist, Chicago.

FOR SALE.—Two No. 15 Hitchings Boilers and 4100 cast iron pipe. T. R. HOPKINS, St. John, N. B. Canada.

FOR SALE.—Two Hitchings hot water boilers, nearly new, capacity 600 and 500 feet of 4-inch pipe. Price \$900 and \$800. Mrs. J. B. BAIN, M. R. SAUNDERS, Bradford, Ill.

FOR SALE.—In a booming city, a business controlling the trade of 50,000 inhabitants. No discount on it in any way. Ill health only reason for selling. Price \$1800. 317 West 9th St., Pueblo, Colorado.

FOR SALE.—A fourteen section No. 2 Exeter boiler with all fittings including safety valve, steam and water gauges, damper regulator, doors, etc., in first class condition. Only used three years. Cheap for cash. R. G. HANFORD, Norwalk, Conn.

FOR SALE.—200 feet 4-inch pipe, fittings such as tees, elbows, valves, etc., one new Zirnichel boiler capable of heating 1,700 feet 4-inch pipe, at very low price to clear out.

J. NEWMAN & SONS, 51 Tremont St., Boston, Mass.

FOR SALE OR RENT.—Three greenhouses and stock, near Camden and Philadelphia, in town of 3000 people, \$1,400, terms easy; or \$80 rent per month. Nearly new. Near New York. Address GOLD, best reason, FLORIST, box 18, Haddonfield, N. J.

FOR SALE.—Or exchange for a first class greenhouse property, a beautiful southern home in the city of Denton, Texas, 2 story house and out-buildings, 8 acres of orchard, some fruit, very fine, healthy climate. For particulars address P. O. Box 291, Denton, Texas.

FOR SALE.—A well established florist establishment in a live town in northern Ohio, 5000 square feet of glass thorough cultivated vegetable garden within 10 minutes of a much larger area of glass. All new, doing a good business. Address, Chicago, A. G. care American Florist.

FOR SALE.—A rare chance for gardeners and florists. A well established and remunerative business, consisting of a well built, airy, healthy, a good dwelling, barn, 2 greenhouses with hot water furnace, a good well and hydrant water supply, 5 acres well cultivated, with lots of fruit trees, 1 mile from above mentioned premises, a large lot of choice plants, bulbs, trees, etc., 1 horse, wagons, carriage, sleigh, cutters, etc., and many implements for sale at a bargain. Apply early to Mrs. MAUDALENE DINGER, Eau Claire, Wis.

FOR SALE.—Seven years established floral business, three greenhouses, $\frac{1}{2}$ acre of ground on street car line, centrally located, the collection of plants: winter roses in 30,000 inhabitants; but little competition; nursery in connection. Address: GEO. B. BOWMAN, Pueblo, Colorado.

FOR SALE.—A good established florist business in a city of 16,000 inhabitants; 5,500 feet of glass, good stock greenhouse and bedding plants; city water; houses heated by steam; all in good repair; business paying well. Good reason for selling. MRS. GEO. LOW, Stillwater, Minnesota.

WANTED.

Florists will please send their Trade and Retail lists to the
HOOPESTON FLORAL CO., Hoopeson, Ill.

WANTED.

A Second hand Boiler in good condition, capable of raising 60 feet of 4-inch pipe. Also 350 feet of second hand 4-inch pipe and fittings.
Address at once with particulars,
CHAS. N. WOODRUFF & CO.,
MACON, GA.

FOR SALE.

ONE MYERS BOILER capable of heating 400 feet of pipe, in good condition, \$200 cash delivered on cars.

DAVID PIERCE, Burlington, N. J.

BARGAINS IN BOILERS.

The following boilers were removed to give place to larger ones to be worked at very high pressure, and will be great bargains to anyone needing boilers: 4 tubular boilers, 34 inches by 14 ft., good for 50 lbs. pressure. 1 tubular boiler, 34 inches by 12 ft., good for 60 lbs. pressure. 1 fire boiler, 40 inches by 20 ft., 20 lbs. pressure. 1 tubular boiler, 40 inches by 20 ft., 20 lbs. pressure. 1 tubular boiler, 40 inches by 20 ft., 20 lbs. pressure. All of the above have Hartford Insurance Company's certificates. Address

HARRISON BROTHERS & CO.,
35th and Grays Ferry Road, PHILADELPHIA.

AUCTION SALES

Will be held

SEPT. 20.—Hothouse Plants, Ferns, Palms and Orchids.
SEPT. 23.—Combination Plant sale.
SEPT. 25.—Established Orchids.
SEPT. 27.—Roman Hyacinths, Lilium Candidum, and general Bulbs.

By **AUGUST ROLKER, Auctioneer,**
in firm **AUGUST ROLKER & SONS, 44 De St. N. Y.**

SPECIAL OFFER.

Per 100 per 1000
Smilax, strong 24-inch pots..... \$2.50 \$20.00
Double White Bellis (Bellis perennis),
strong 1 year old clumps..... 2.00 15.00
Primula Obconica, 3-inch pots..... 8.00
Hardy Pink Snow, strong 1 year old
clumps..... 8.00
Myosotis..... .75 5.00
Free on board at Philadelphia.

WM. J. EISELE, Torrissdale, Philadelphia, Pa.

PRIMULAS.

Strong plants of P. Obconica for winter flowering, in light cases, by express, \$3.00 per 100. Fresh crop (1889) Seed of "Obconica," \$1.00 per 100 seeds.

ADIANTUMS.

Per 100
A. CUNEATUM, from 24-inch pots..... \$ 5.00
3-inch pots..... 6.00
A. MORITZIANUM, from 3-inch pots; fine
bushy plants, grand for filling ferneries, etc. 6.00

FISHER BROS. & CO. Montvale, Mass.

ROSES.

In order to make room for young stock we offer the following low inducements: Bon Silene and Souv. d'un Ami, 3-inch pots, strong \$7.00 per 100. Mermet, Cook, Papa Gontier, Bride, Niphetos, Perle, La France and M. Niel, from 3-in. pots, strong plants \$8.00 per 100. TEAS and HYBRID TEAS, from open ground, strong plants \$6.00, \$5.00 and \$10.00 per 100.

SMILAX, Strong plants, \$2.50 per 100; \$30.00 per thousand.

CARNATIONS.

Peerless, Edwards, Portia, Florence, Aletatore. The Century and Philadelphia, strong, healthy plants from open ground. Last size, \$3.00, 2nd size, \$2.50 per 100.

WOOD BROTHERS,

(Successors to I. C. WOOD & BRO.) FISHKILL, N. Y.

WANTED THIS FALL H. P. Roses on Own Roots

Quote price and send list of varieties. Two year old plants preferred.

A. M. & J. B. MURDOCH,
PITTSBURGH, PA.

IMPORTED H. P. ROSES.

Worked low on the Manetti Stock, best kinds for forcing. Orders received now for delivery in November. Address

WILLIAM H. SPOONER, Jamaica Plain, Mass.

ROSES. ROSES. ROSES. GARAWAY & CO.,

Durham Down Nurseries. CLIFTON, BRISTOL, ENGLAND.

Offer the following Dwarf Roses, assorted, at 25 Shillings per 100. TERMS: CASH WITH ORDER.

A. Colomb,	Dupuy Jamin,	Mme. Chas. Wood,
A. K. Williams,	Earl of Dufferin,	Mme. Gabriel Luizet,
Anguste Regotard,	Earl of Pembroke,	Mme. Victor Verdier,
Baron N. Rothschild,	Eclair,	Mlle. Eugene Verdier,
Baroness Rothschild,	Etienne Levet,	Magna Charta,
Benoit Comte,	Fisher Holmes,	Marquis de Castellane,
Chas. Lefebvre,	Gen'l Jacqueminot,	Merveille de Lyon,
Comtesse de Serenye,	Geo. Baker,	Marie Baumann,
Coutess of Oxford,	Glory of Cheshunt,	Mrs. Jno. Laing,
Dr. Andre,	Grand Mogul,	Pride of Waltham,
Duc de Wellington,	Heinrich Schultheis,	Prince Camille de Rohan,
Duke of Albany,	Jno. Hopper,	Senateur Vaisse,
Duke of Connaught,	La France,	Sophie Coguerell,
Duke of Edinburgh,	Louis Van Houtte,	Ulrich Brunner.

All the above on the Manetti, well grown and healthy. Can be sent from Bristol direct the last week in October.

GARAWAY & CO.

DURHAM DOWN NURSERIES. CLIFTON, BRISTOL, ENGLAND.

TREE ROSES.

4 to 5 Feet High.

Pot grown plants, and also from open ground. Best varieties and best plants in the country. Now ready for Fall trade.

Gabriel Marc,
WOODSIDE, L. L. N. Y.

2500 ROSES.

Fine, healthy plants grown in 4-inch pots, at \$8.00 per 100, consisting of:
**PERLES, MERMETS, BRIDES, NIPHE-
TOS, AMERICAN BEAUTY, DE WAT-
TEVILLE, BON SILENE & SAFRANO,**
or will exchange for White Carnation plants.

JAMES HORAN,
BRIDGEPORT, CONN.

ROSES.

35,000 of the leading Forcing and Bedding varieties: TEAS, HYBRID TEAS, and HYBRID PERPETUALS. Teas, \$3.00 per 100; Hybrids, \$4.00 per 100. My selection of varieties. Also the leading fine winning varieties of CHRYSANTHEMUMS, CARNATIONS, and general Greenhouse stock. Trade List mailed on application.

JACOB SCHULZ,
LOUISVILLE, KY.

G. BENARD,

ORLEANS, FRANCE.
ROSES ON THEIR OWN ROOTS
A SPECIALTY.

NURSERY STOCK OF ALL DESCRIPTIONS

For particulars apply to
E. BENARD, Jr.,
P. O. Box 1403, SAN DIEGO, CAL.

ROSES.

On account of scarcity of room we offer the following varieties of plants for sale at a sacrifice:
**PERLES, NIPHEOTOS, SOUV. D'UN AMI,
LA FRANCE, MERMETS and BRIDES.**
Good, healthy plants in 4-inch pots. Correspondence solicited.

GERMOND & COSGROVE,

Box 63, SPARKILL, Rockland Co., N. Y.

HYBRID PERPETUAL ROSES

of the leading varieties from open ground. Well balanced assortment of colors; clean, thrifty, one year plants, first class in every respect. \$10 per 100.
REN BEGONIAS, due assortment including the two best selling varieties L. Chretien and Rol Ferd. Major.

McCrea & Cole,
BATTLE CREEK, MICH.

"A GREAT HELP IN CUT FLOWER WORK, AND HAS BEEN GREATLY NEEDED."

So say many of FLORAL DESIGNERS, concerning which more can be learned by addressing
J. HORACE McFARLAND, Harrisburg, Pa.

SMILAX.

Good strong plants at \$5.00 per hundred.

ROSES.

A fine assortment of Teas—will name a few of the leading varieties:

Adam, Bride, C. La Barthe, Etoile de Lyon, L. Sprunt, Safrano, Marie Lambert, M. Margottin, M. Van Houtte, P. de Hohenzollern, White Bon Silene, Hermosa, Douglas, Malmaison.

NOISETTES.

M. Niel, Chromatella, Gloire de Dijon, and R. M. Henrietta.

Price, \$4.00 per 100; \$30.00 per 1000. Also also a good stock of young Hybrids of the following varieties:

Gen. Washington, H. Schultheis, Mme. A. Duron, Mme. Masson, Paul Neyron, Coquette des Alps, Dr. Hogg, Giant of Battles, Crown Prince, and others, at \$6.00 per 100; \$45.00 per 1000.

Gen. Jacqueminot, \$5.00 per 100; 4 inch pots, \$12.00 per 100.

Strong Baltimore Belle, in 3-inch pots at \$8.00 per 100.

GEO. W. MILLER,

1748 N. Halsted St., CHICAGO.

MILDEW ON ROSES.

SING SING, N. Y., July 24, '89.

MR. BENJ. HAMMOND, Fishkill-on Hudson.
My Dear Sir—During the past season, I gave your "Grape Dust" a thorough trial in my rose houses. As a preventive of Mildew on plants, I regard it as superior to sulphur. It is more easily applied, adheres to the foliage better and seems quicker in its effects. If mildew is caused by weakness or an unhealthy condition of the plant or, as is often the case in the winter months, by keeping the soil too wet, it is unreasonable to expect any permanent benefit from the application of mildew mixtures; but when caused by a draught of cold air, or by a sudden change in temperature or other unavoidable circumstances, it can be eradicated if taken in hand at once. For this purpose I know of no more efficient remedy than Grape Dust. I should think you would find a ready sale for it when its merits become generally known.
Very truly yours,
JOHN HOAG.

"GRAPE DUST"

Is Sold by the SEEDSMEN of AMERICA.

Roses and Chrysanthemums.

Mermets and Brides, 3-inch..... \$ 6.00
Chrysanthemums in 20 varieties, 3-inch..... 4.00

" " 4-inch..... 8.00
Strong, healthy plants, and good packing.

Hans Nielson,

ST. JOSEPH, MO.

Catalogues Received.

Wm. B. Hartland, Cork, Ireland, daffodils; James Vick, Seedsman, Rochester, N.Y., hardy bulbs and plants; V. Doppelt, Erfurt, Germany, seeds and plants; Siebrecht & Wadley, New Rochelle, N.Y., plants; R. Van der Schoot & Son, Hillegom, Holland, Dutch bulbs; Sam'l C. Moon, Morrisville, Pa., nursery stock; Currie Bros., Milwaukee, Wis., bulbs and seeds; Dr. H. Schroeder, Bloomington, Ill., nursery stock; Gardner & Sons, Osage, Iowa, nursery stock.

A copy of their catalogue of "new rare and beautiful plants" for 1889-90 has been received from Messrs. Siebrecht & Wadley, New Rochelle, N. Y. It contains 208 pages and is most liberally and handsomely illustrated throughout. The lists of orchids, ferns and decorative plants are very complete, and in addition there are good lists of greenhouse and hardy plants. It is certainly a credit to the firm issuing it. And a word of commendation is due to Mr. J. Horace McFarland, the printer, for its typographical excellence.

ROSEN, Gen. Jacq., field grown, 1 year.....	Per 100
Gen. Jacq., 3-inch pot plants.....	5.00
Gen. Jacq., 3-inch pot plants.....	5.00
DAY LILY, White Funkia alba, \$10, \$12, extra 15.00	
AMPELOPSIS VEITCHII, field grown, good vines.....	per 100 \$10.00
Fine plants from 3 and 4-inch pots.....	\$3.00, 4.00
HYDRANGEA Thos. Hogg from 2 1/2-in. pots	5.00
GERANIUMS, standard named sorts, 2 1/2 and 3-inch pots.....	per 1000 \$22.00, 2.50
Mme. Sallier and Rose Scented.....	2.50
PANSIES, fine strain, strong, twice transplanted.....	per 1000 \$9.00, 1.00
Autumn sowing, one Grand Duke.....	1.50
DANIELS' EXHIBIT, Double White, Long, yellow, pink.....	per 1000 \$10.00, 1.50
SWEET ALYSIUM, Double White, strong, 2 1/2-inch pots.....	2.50
CHRYSANTHEMUMS, good blooming plants, 4-inch pots.....	6.00
WHITE MOON FLOWER.....	2.00
E. FRYER, Delaware, O.	

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First Class, from 2 1/2-inch pots.
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PANSIES.
Dreer's Finest Mixed Pansies, \$5 per 1000.
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Evergreen, Ala.

CUT FERNS IN VARIETY:
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All good, strong, healthy plants, 10 per cent. better than last year. Per 100 Per 1000
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Czar, single blue..... 2.50 22.00
Swanley White, double white..... 2.00 18.00
Runners of Swanley White, well rooted, 1.00 8.00
Also 300 Magnolia grandiflora, in 2 and 2 1/2-in. pots..... 5.00 45.00
Or will sell 500 of any of the above at 100 rates.
Cash must accompany orders from unknown parties.
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I have a very fine and healthy stock of above. Large stock of Hinz's White, \$5.00 per 100. Portland Grace Wilder, and other leading sorts; also some choice New Varieties.
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I don't fail to send for my price list above before buying.

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Fine Field-grown CARNATION PLANTS,
extra large and healthy, \$5.00 per 100; \$50.00 per 1000. All the best sorts.

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HINZ'S WHITE CARNATIONS, at \$5.00 per hundred. Out-door grown, large clumps.

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7000 Seed—this season's crop—at 40c. per 100, or \$3.50 per 1000. Cash with order.

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And all kinds of

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CARNATIONS.

SNOWDON, GRACE WILDER, ANNA WEBB, ORIENT and COLUMBIA.
A few hundred choice plants at reasonable prices.

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100 Hinz's White.....	8.00
100 Pres. De Graw.....	8.00
50 Sunrise.....	8.00
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HANS NIELSON,
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CARNATIONS.

Field grown Portia, DeGraw, Janette, Century, Edwards, King of Crimson, \$5 per 100; \$45 per 1000. Also fine, large clumps of Neapolitans, Marie Louise and Swanley White Violets, \$5.00 per 100; \$50.00 per 1000.

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We warrant these plants perfectly healthy and as good quality as can be found anywhere. TRY US.

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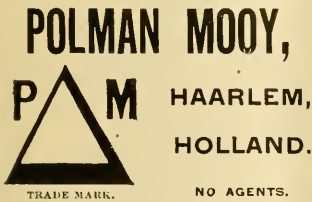
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Selected Crowns or Pips

FOR WINTER FORCING.

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LILIAM HARRISII, 5 to 7-inch. . . . \$7 00 per 100; \$65 00 per 1000
" " 7 to 9-inch. . . . 9 50 " 90 00 "

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LILIAM CANDIDUM, home grown, extra large for forcing. Now ready.

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CALLA, large, California grown roots, to arrive during August.

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Prices on above bulbs on application.

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SPECIAL OFFER OF FORCING TULIPS. ALL FIRST QUALITY.

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Belle Alliance 17 50 "	Duchess de Parma 14 00 "
Crimson King 9 00 "	Kaiser's Crown 25 00 "
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1000 Comprised of 100 each of the above sorts, @ \$30.00. Choice mixed Forcing

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November 12-16, Philadelphia.—Chrysanthemum Show Pennsylvania Hort. Society.

November 12-14, Boston.—Chrysanthemum Show Mass. Hort. Society.

November 12-14, Orange, N. J.—Chrysanthemum Show New Jersey Floricultural Society.

November 12-16, Cincinnati.—Chrysanthemum Show Cincinnati Florist Club.

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From 3 to 11 feet high, \$3.00 per foot.

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From 75 cents to \$3.00 each.

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Large flowering bulbs, \$9.00 per 100; \$1.50 per doz.

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SMILAX SEED (NEW CROP).

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100 Calla Bulbs, blooming, \$8.00

" " small, 1.00

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Begonia Rex, fine plants, 10.00

Primroses, 4 inch pots, fine plants, from \$5.00 per hundred. ADDRESS

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AT LOW PRICES.

CARNATIONS, strong, bushy plants well pinned in, from open ground. Fortia, E. G. Hill, Hinz's White, J. J. Harrison, Crimson King, Columbia and other leading sorts, \$8.00 per 100.

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VIOLETS, strong clumps, Marie Louise, Swanley White and Neapolitan, \$7.00 per 100.

PALMS, Lætare Borbonica, 2½-inch pots, strong plants, \$6.00 per 100; 3-in., \$10.00; 4-in., \$18.00 per 100.

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SOME CHOICE STOCK

ON WHICH YOU CAN MAKE MONEY.

Per 100

1100 Hibiscus, 2½-inch, fine, \$3.75

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2000 Roses, TEAS, in variety, 3-inch, 5.00

400 " Duchess of Brabant, 3-inch, 5.00

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400 " Century, Garfield, Sunrise, Ches- 5.00

1400 Carnations, FORTIA, fine clumps, 7.00

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1000 " ter Pride, Hinz's White, etc., clumps 8.00

2000 Geraniums, fine variety, 3-inch, 3.50

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in 12-inch pans, which I can warrant to bloom this winter. The plants are getting too large for me. For prices write to

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Ferns, in sorts, 8.00

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PRIMULA OBCONICA PLANTS, from 3 & 3½-

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PRIMULA FLORIBUNDA, 2-inch pot plants,

60 cts. per doz.; \$4.00 per 100.

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Double White Primulas

\$10.00, \$12.00 and \$15.00 per 100.

Cash with Order from unknown parties.

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and propose to issue the same in time for spring trade of 1890. All persons in the trade who know of any changes from former Directory, either because of errors in that or of new places, are requested to send us the same.

We propose, where possible, to state amount of glass owned by each firm; and all who report to us are urged to state amount they have in round numbers that we may insert the same in the Directory.

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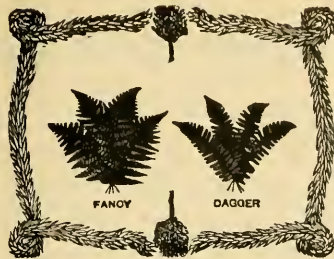
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At the annual meeting of the New Orleans Hort. Society the following officers were elected: C. W. Bichling, president; C. Thomas, vice-president; Chas. Wise, recording secretary; N. Roberts, corresponding secretary; John Eblen, treasurer. The society is in a very prosperous condition and proposes to give its fourth annual exhibition the coming spring.

Maitre & Cook have dissolved. Mr. Maitre continues at the old stand, while Mr. Cook starts one square away. The latter is now busy building extensive greenhouses.

J. Bercegey has built at Covington, a few miles from the city, a large pottery. He will manufacture exclusively the standard pot as adopted by the Society of American Florists.

Business at present (August) is at a standstill, but prospects for a brisk winter's trade are promising. H. A. D.

THE SIXTEENTH exhibition of the "General Royal Union for the cultivation of flower-roots" will be held at Haarlem, Holland, March 21 to 25, 1890. Not less than 253 prizes, consisting of gold, gilt, silver and bronze medals, are offered in 105 classes.



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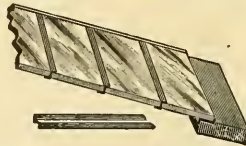
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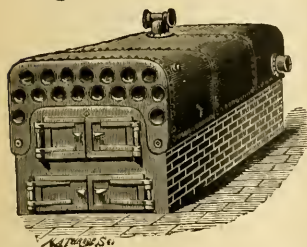
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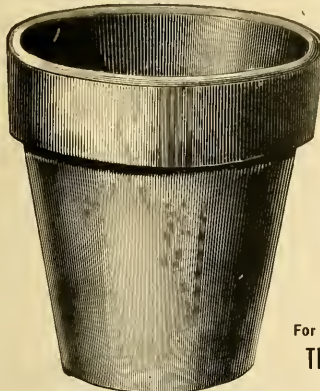
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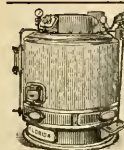
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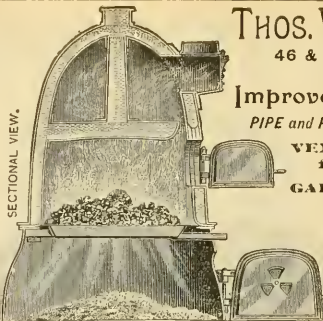
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Index to Advertisers.

Advertising Rates, etc.	68
Aldine Printing Wks.	69
Allen, W. S.	71
Bailey F. A.	72
Bayardorfer M & Co.	71
Benard J.	71
Benz Albert.	75
Berger, H. H. & Co.	76
Blanc A.	72
Bock Wm A.	72
Bonner E & Co.	73
Braque L. B.	73
Brackenridge & Co.	73
Brinton W. L.	73
Brown F. S. & Son.	74
Burrow J. G.	72
Butz Paul & Son.	73
Buxton Geo E.	73
Caldwell Geo W.	72
Carmody J. D.	80
Clark G. R. & Co.	73
Concord St Nurseries.	72
Cox Thos A & Co.	74
De Vear J. A.	73
Devine, Peter.	73
Dier, John L. & Co.	73
Dillon, J. H.	69
Dreier, H. A.	72
Elsie W. J.	71
Ellis Bros.	72
Ellwanger & Barry.	71
Fassett, F. M. & Bro.	69
Faxon M. B.	71
Fisher Bros & Co.	71
Fisk Chas H.	71
Foster F. W. & Co.	73
Fryer E.	72
Gardway & Co.	71
Gardner Jno & Co.	73
Gasser J. M.	73
Germond & Cosgrove.	71
Giddings E. M.	72
Greene W. W. Son & Son.	72
Griffin T.	75
Grimm, Jas.	75
Grimb, N. S.	71
Hales, H. W.	72
Hall C. L.	70
Hallcock V. H. & Son.	70
Hammond, Benj.	71
Hammond & Huner.	71
Hantusch, Rudolph.	72
Harrison Bros Co.	71
Herendeen Mfg. Co.	80
Herr, Albert M.	75
Hilfinger Bros.	79
Hippard E.	79
Hitchings & Co.	80
Hooker, H. M.	79
Hoopston Florist Co.	71
Horan, Edw C.	69
Horan Jas.	71
Hoyt R. H.	76
Hudson John M.	69
Jas, J. H.	75
Jennings E. B.	75
Keller J. B.	74
Kennicott Bros.	69
Kimball A. S.	69
King Jas.	73
Kramer J. N. & Son.	74
Krick, W. C.	74
Lacy I. B.	75
Lampert J. J.	72
La Roche & Stahl.	69
Laurence J. E.	72
Laux Bros.	73
Lockland Lumber Co.	73
McAllister, F. E.	73
McCarthy, N. F. & Co.	69
McCrea & Cole.	71
McFarland J. Horne.	71
Mathews, Wm.	75
Merrick, A. T.	72
Michael Flashed Co.	72
Miller, Geo. W.	71
Mooy Polman.	73
Murdock A. M. & B.	71
Nelson Hans.	71
Pennock Chas E.	69
Perkins J. N.	79
Pierce Butler & Pierce.	70
Pierce David.	71
Pike Co Nurseries.	73
Pitcher & Manda.	75
Plenty, Joseph.	73
Quaker City Mch. Wks.	73
Reed & Keller.	78
Reich Jos.	72
Reichers F. A. & Sohne.	76
Riemer F.	75
Rohrer, A. & Sons.	71
Ross & Millang.	69
Saul John.	70
Schiller & Mallander.	76
Schulz Jacob.	70
Scollay, John A. B.	71
Shelshire W. R.	69
Sheridan W. F.	69
Snyder Thos.	71
Siebrecht & Wadley.	70
Situations, Wants.	70
Smith David.	71
Smiths Powell & Lamb.	75
Spooner, Wm. H.	71
Sprague F. L.	71
Stearns A. Lumber Co.	78
Stevens N.	71
Stewart, Wm. J.	69
Storrs & Harrison Co.	75
Studer N.	71
Tappin S.	71
Thompson Mrs J. S. R.	72
Trischler M. & Son.	71
Van der Schoot & Son.	72
Vaughan, J. C.	69
Vreeland Bros.	72
Weathered, Thos. W.	80
Weich Bros.	69
Whilldin Pottery Co.	71
Wills S. Mfg Co.	79
Williams H. W. & Son.	79
Wisconsin Flower Ex.	73
Withold Geo.	76
Wolfe, L. Mfg. Co.	75
Wood Bros.	71
Woodruff C. N. & Co.	71
Woodward W. H.	74
Yonke, Thos. Jr.	69
Zirngiebel D.	75



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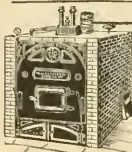
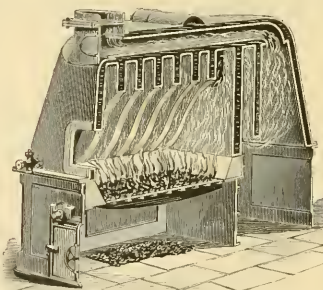
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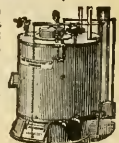
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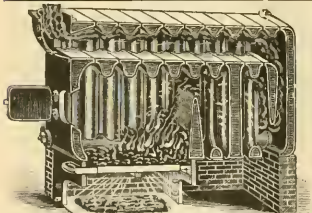
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Vol. V.

CHICAGO AND NEW YORK, OCTOBER 1, 1889.

No. 100.

THE AMERICAN FLORIST

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Entered as Second-Class Mail matter.

Published on the 1st and 15th of each month by

THE AMERICAN FLORIST COMPANY.

Subscription, \$1.00 a year. To Europe, \$1.50.

Address all communications to

AMERICAN FLORIST COMPANY,
54 La Salle Street, CHICAGO.

SOCIETY OF AMERICAN FLORISTS.

J. M. JORDAN, St Louis Mo., president; M. H. NORTON, Boston, Mass., vice president; WM. J. STEWART, 67 Bromfield St., Boston, Mass., secretary; M. A. HUNT, Terre Haute, Ind., treasurer. The sixth annual meeting at Boston, Mass., August, 19, 20, 21, 22, 1890.

CONTENTS.

Mass. Hort. Society	\$1
Remarkable notes and comments	\$1
Buffalo notes	\$2
The Florists' Hall Association	\$2
Scientific education for gardeners, etc	\$2
A curious sport (with illustration)	\$3
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Philadelphia notes	\$4
Cartoons—seasonable notes	\$6
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Roses—seasonable notes	\$8
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Rochester notes	\$8
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Sensational news items	\$9
Early firing	\$9
The exhibitions	\$9
"Crape chasers"	\$9
Catalogues received	\$9
Coming exhibitors	\$9
The seed trade	\$9
Chicago	\$9
Philadelphia	\$9
St. Paul	\$9
Reduced rates on nursery stock	\$9
Art(?) and nature	\$10

THERE is a most unfortunate and untrue belief existing in the minds of many people that cut flowers are at most times an expensive luxury. The injury worked to the trade by this impression is much greater than is generally known. Doubtless much of this has been caused by the sensational newspaper stories of extravagant uses of flowers. Certain it is that we need a remedy and every florist should whenever opportunity occurs, circulate the fact that at most times the best flowers are sold at a moderate advance on actual cost and that such prices do not reach the limits of extravagance.

CHRYSANTHEMUM shows are still gaining in popularity. Exhibitions with this year be held in Boston; Philadelphia; Orange, N. J.; Chicago; Indianapolis; Cincinnati; Detroit; Springfield, Mass; Worcester, Mass.; San Francisco; Columbus, O.; Newport, R. I.; Charleston, S. C.; and Sandusky, O.; and Buffalo is thinking it over.

Massachusetts Horticultural Society.

The annual exhibition of this society opened at Boston on Tuesday, September 17, continuing for four days. The weather was most unfavorable with the exception of the last day, and the attendance was materially decreased on this account.

The entrance to the hall was tastefully festooned with laurel, etc. The lower hall, with the exception of the stage on which was displayed a collection of choice evergreens from Mr. W. C. Strong, was devoted to the fruit and vegetable departments of the show. Taken altogether this section was very creditable, the pears especially giving evidence of having enjoyed a most favorable summer. The apples were unusually good, out door grapes were inferior, and the hot house grapes were not quite up to the average. Several bunches from Geo. McWilliams, of Whitinsville, were superb in size of bunch and berry. The best grapes shown were two bunches of Muscats from Jas Brydon, of Yarmouthport. They were very well finished.

In the upper hall the customary large collection of tropical and foliage plants was to be seen. The largest display came from Mr. W. E. Doyle, who now exhibited for the first time and, judging by the enterprise shown in this instance, will doubtless be an important exhibitor in future shows. His fine collection of palms, cycads, araucarias and pandanus made a grand effect in the hall, which, indeed, would have looked rather empty without them.

Next to Mr. Doyle, Wm. J. Martin, gardener to N. T. Kidder was the largest exhibitor. His collection comprised many plants with variegated foliage, which lit up grandly under the electric lights.

From Thos. Clarke and J. H. White there were also fine displays of tropical foliage plants. Mr. H. H. Hunnewell contributed a group of beautiful specimens, including a fine plant of that as yet rare variety, the variegated Dracaena indivisa. His dracaenas were awarded a certificate of merit.

There were some very fine ferns from Dr. C. G. Weld and N. T. Kidder, a plant of Davallia Mooreana from the latter being one of the finest specimen ferns ever seen in the hall. There were but few orchids. John L. Gardner, Benj Grey and N. T. Kidder being the only competitors in this line.

It is hard to understand, unless it is on account of the insignificant encouragement in the shape of premiums, why so few flowering plants are shown at these exhibitions. The foliage plants are all right but bright colors, such as are found in flowers alone, are needed to give proper brilliancy to the display. Ixoras, eucharises, dipladenias and other plants which might be named might be had in

splendid form at this season and would make most desirable additions to our too colorless displays.

The tank of aquatics contributed by H. H. Hunnewell, Benj. Grey and L. W. Goodell was as usual one of the features of the exhibition, and the beautiful nymphæas attracted much attention. But while the contents of the tank are so desirable the tank itself is a nuisance and disfigurement. It would take but little ingenuity and small expense to provide a place for the exhibition of aquatics more artistic and appropriate than a great rectangular green box.

The display of cut flowers was quite small, being confined chiefly to wild asters, callias, begonias and dianthus. Geo. S. Tuttle excelled especially in pompon dahlias, and those from Franklin Bacheller were also good. Some hydrangeas of a marvelous blue color were shown by W. C. Strong, R. T. Lombard showed some good blooms of the new white carnation Mrs. Fisher.

The premiums offered for table plants, vases of flowers and table baskets brought out some very nice exhibits in that line. The new incandescent lights were pronounced a great success.

The crotons, dracaenas and other plants with showy foliage lighted up with great brilliancy in the evening. W. J. S.

New York Notes and Comments.

Gabriel Marc, one of the wealthiest and best known residents of Newtown, Long Island, died at his home in Woodside on September 15. Mr. Marc was widely known among the older generation of florists, being considered the pioneer nurseryman of Long Island. He was well known as an importer of French roses and azaleas, having devoted much attention to the latter plant. He was of French origin and, like the venerable Louis Menand, was highly esteemed by his compatriots in the trade. Mr. Marc had amassed a fortune, and has been living in retirement for some years. He was about 60 years old. His death will be greatly regretted; he represented the conservative, yet enthusiastic generation of nurserymen now gradually passing away.

Mr. J. Fostermann, the widely known and popular representative of F. Sander, of St. Albans, has entered into business on his own account at Newtown, Long Island, as a grower of orchids and fine plants. Mr. Fostermann will find many well-wishers in his new venture.

Chas. F. Klunder, the well known Broadway florist, has recently failed. Liabilities and assets are at present unsettled, as no assignment has been made. Three of the largest creditors are W. S. Allen and Thos. Young, Jr. of New York, and Jas. Dean, of Bay Ridge. The

embarrassments spread over a good deal of time, and the creditors do not seem in a very sanguine frame of mind.

Owing to the unusually heavy rains outdoor flowers are pretty well over, and the injury to stock is quite large. A member of the trade who has gone in for an aquatic garden, was recently asked about his success in this line. He seemed to consider aquatics a failure through the wet season, and declared that his plants had been two feet under water for some time. It sounds queer to say that the summer has been too wet for aquatic plants, but such is certainly the case, and other stuff has suffered in proportion. It is noticeable, too, how sales always fall off when there is a period of wet and dismal days. The florists is certainly a fair weather business; people don't seem to think so much of buying flowers when kept indoors by bad weather, and the September rains have had a decided effect on the florists' pocketbooks.

A large trade sale was held at Astoria, by order of W. C. Wilson's assignee, in the latter part of September. It included a quantity of pandanus, as well as a general collection; a good deal of pandanus has been offered at some previous auctions in the city. It must be plentiful, and yet there seems a scarcity of certain useful sizes. Very often there is an overplus of small, poorly grown or dirty pandanus which meets with a very cool reception.

Mr. Samuel Henshaw has returned from England much invigorated by his trip. Mr. Jos. Towell has also returned from the Old Country; he spent three or four weeks in the United Kingdom, visiting most of the great nurseries. Thos. Young, Jr., is another returned voyager.

Mr. F. Mau, of Weehawken, the well known orchid importer, has been selling largely through the agency of Ang-Rolker. Mr. Mau has a very fine collection of cattleyas, among them over fifty good varieties of *Trianae*. The orchid trade has been quiet during the summer; it always seems at its best during cold weather.

Canna flaccida is very accurately described on page 64 of the FLORIST as strongly resembling an iris in bloom. The likeness is striking, and Mr. Steele does not rate it a bit too highly, but the ephemeral quality of the flower is certainly a disadvantage. The writer recollects seeing it at South Amboy (N. J.) some years ago, finely grown in a large general collection of cannas, but, while making a good show, the flowers were gone too quickly to be of great value. Probably it would do better in Florida than here, though we see very well grown cannas around New York.

So far we have heard nothing of an autumn flower show in New York, chrysanthemum or otherwise. There will surely be a good one at Orange, as usual; it seems a pity that prospects are not brighter in the metropolis. It is a pity, though, that Boston, Philadelphia and Orange should arrange to open their shows on the same day; so many florists like to see the opening day at each show, and not being Sir Boyle Roche's bird they can't be in more than one place at a time.

All the roses seen this month give promise of a very fine season coming; Perles usually look exceedingly well. The damp summer has certainly induced a good deal of mildew, but the plants are vigorous in spite of this. Madame de Watteville seems likely to prove more vigorous as it is better understood; it is certainly a popular rose, while Gabrielle Drevet, which made its first appearance

at the same time as the foregoing, is in a back seat. Drevet is really too small a bud for commercial purposes, though the color is pretty enough. Frignee seems very much in the shade already; the successful rival of Perle has yet to be discovered in spite of complaints against the latter. Duchess of Albany certainly promises well, it ought to take with the public as well as the growers.

EMILY LOUISE TAPLIN.

Buffalo Notes.

There was on one of the streets a large pot full of caladiums—a No. 1 pot or, perhaps to be more explicit, a 24-inch pot—standing on a plinth nearly the height of a second story window, hugging the cornice of a pagoda, the roof of which was in stripes of color, buff and brick red. Did you see this W. F.? I did and thought it characteristic, effective and in good taste. On the same street and nearly opposite was an oblong bed with one end to the street and the other towards the house, about 18 feet long and 5 feet wide. The margin was about a foot wide of *Alternanthera aurea*, a foot wide second row of *Iresine* or *Achyranthes Wallisi* and with a foot wide center of *Sivla serrata variegata*. It was chaste, beautiful and impressive, and I am sorry I had not Mr. McMillan with me, as I believe he would have admitted that there was a place where such planting was nothing but O. K.

Now just a word about the exhibition. It was the best arranged, the best managed, and the work of judging was done more expeditiously than ever before. We owe a great deal to our Buffalo friends for what they did for us, but for nothing more than the exhibition part of their labor. W. F. is right when he says that the most important exhibits should be noticed and displayed on and described from the platform.

We have found it very difficult hitherto to get awards completed, but now I think we have got well started and we shall do better each year.

One more word about that paper of Mr. McMillan's. It, as I understand, came very near being accepted as read and published in the minutes, I was informed by two gentlemen who had the pleasure of looking it over before the meeting that they thought it was so hot and had so much to say against coleus and that ilk that if the paper was read they would not be responsible for Mac. But the paper was read (and how it was read), and proved that florists can take a little cayenne at times in their even. I do not agree with all Mr. McMillan said, but I do say that it is one of the most important, if not the most important paper ever presented to the society. There is lots to say for and against this paper, and as it will keep there is time to discuss it in a future number.

JOHN THORPE.

The Florists' Hail Association.

The meeting of the Florists' Hail Association, like everything connected with the Buffalo convention, was a success. Members of the Society of American Florists at last viewed the Hail Association in its true light, that is, an organization for mutual benefit, which by its practical working has shown that it costs less to secure its members against loss than by any other known form of insurance. The secretary reported that the officers had not found it necessary to levy an assessment since the organization of the association, June 1, 1887.

After a careful review of the working of the association for the past two years the directors unanimously voted to recommend the following amendments to the by-laws: 1st that "Section 2 of Article 5 be amended to read \$500 instead of \$200;" 2nd, that "Members be allowed to increase their insurance by either one half or a whole assessment and members so increasing their insurance shall receive pro rata advance upon the amount designated in Section 1 of Article 7 as payment of loss." These amendments were unanimously adopted by the members at their annual meeting, which was held in Music Hall on Wednesday, August 21.

The second amendment is really a step in the direction of plant insurance, and if its future working meets the anticipation of its projectors the difficulties attending plant insurance will have been solved. The whole thing in a nutshell being, that if a man doubles his insurance on his glass he receives double the compensation for loss. If the glass is not broken of course his plants remain uninjured. If its future workings justify the removal of the limit, the most valuable plants may be insured by increasing the insurance upon glass. The secretary reported 1,327,240 square feet of glass insured exclusive of those who insured their glass at Buffalo, prominent among the latter being Wm. K. Harris, Philadelphia, E. Hippard, Youngstown, O., L. L. May & Co., St. Paul, and many others equally well known.

The directors elected were: J. D. Carmody, Evansville, Ind.; Peter Henderson, Jersey City, N. J.; B. F. Dorrance, Wilkesbarre, Pa.; Edwin Lonsdale, Philadelphia, Pa.; James Horan, Bridgeport, Conn., and J. M. Jordan, St. Louis, Mo.

The following officers were elected for the ensuing year: J. M. Jordan, St. Louis, president; Edwin Lonsdale, Philadelphia, Pa., vice-president; J. C. Vaughan, Chicago, Ill., treasurer, and John G. Esler, Saddle River, N. J., secretary. Mr. E. G. Hill was retired as treasurer upon his own request, because the duties of the office encroached upon his time. Much of the success of the association is due to Mr. Hill's untiring energy, his successor is one of the original promoters of the idea of hail insurance. The association is likely to make rapid strides during the ensuing year.

JOHN G. ESLER, Secretary.

Scientific Education for Gardeners, Etc.

ED. AM. FLORIST:—I see you again make allusion to this subject in the FLORIST of 15th September.

The question before we enter the subject is what is meant by "science;" few words have a greater latitude in definition. If exact science is meant, then it is exceedingly doubtful if it can ever be practically applied to either agriculture or horticulture. Phenology may be true, but it is now generally abandoned as a science, because the difference in temperament of individuals having similar phenological characteristics so changes the workings of the organs that no certain results can be got at, just as we know that soil may contain all the food for a certain crop, yet the crop may fail through adverse mechanical conditions of the soil, or extremes of temperature or moisture, that "science" is helpless to avert. True, when we are operating under glass there is more play for "science"—if we allow the use of the word to be applied to successful experiments. Ten years ago probably one half of all who tried rose growing in



A CURIOUS SPORT.

winter failed, few fail now since by experiment it has been found that four or five inches of soil are wanted rather than eight or nine. This was really a scientific discovery, because it was founded on experimental evidence, that the greater depth of soil could not be dried in winter, hence the roots rotted.

If we can have horticultural schools where actual experiments guided by men who have been "to the manner born," then I am with you every time, but if these schools are to be presided over by mere book students, who have no other claim to be professors of agriculture or horticulture than having graduated at Yale, Harvard, or even Amherst, then such schools and colleges are likely to be barren of good results. Mr. Hill says that he "believes the Society of American Florists has brains enough among its members to supply the deficiency." I entirely agree with him, and think Mr. Hill would make a capital superintendent of such a school himself, only I much question if he would like to throw himself into the breach and sacrifice his business prospects for the compensation usually given for such work, and that is

just where the rub comes in. There is no lack of the necessary brains both within the Society of American Florists and outside of it, but the trouble is that the owners of the brains would be likely to set too high an estimate on them.

It would be worth countless millions to this great continent if the government would lay out say six sections of not less than five hundred (500) acres each in places where as far as possible the different latitudes would be represented, and experiments in agriculture and horticulture be carried on in the broadest sense, to be presided over by men who have had actual working experience in these departments. The compensation should be such that the proper men could be procured, the position should be permanent, clear of all political entanglements, and no removal should be made unless for cause. The value to the country of such experiment stations, under proper management, can not be estimated. Unbiased testing of varieties of plants, of machinery, implements, fertilizers, and everything pertaining to the twin arts of agriculture and horticulture, would be a boon to thousands who are yet groping

in the dark and must for generations yet to come unless some such system can be inaugurated. The State Experiment Stations are a good beginning, but the paltry grant of \$15,000 a year is a mere bagatelle to what would be required for Government Experiment Stations.

It is sometimes questioned why government should be asked to assist agriculture more than any other department of industry. Should it ever be forgotten that the soil is the sole source from which we derive our existence? Let it become barren for but a few years and all life, animal and vegetable would cease to be, so then, just in proportion as we can make it produce most abundantly, so will be our national prosperity.

PETER HENDERSON.

Jersey City, Sept. 20, 1889.

A Curious Sport.

A calla, recently grown in the conservatory of Mr. J. Tailby, of Wellesley, Mass., furnishes an interesting confirmation of the present accepted theory that the parts of the flower, including the surrounding bracts, are modified leaves.

The flower presented nothing exceptional in appearance, but the blade of the leaf, by whose sheathing petiole the flower stalk was enclosed, almost rivaled the spathe, both in delicacy of structure and in the purity of the whiteness, while nearly one-half larger. The upper part of the petiole and the wings of the sheath were likewise nearly blanched.

When the scroll of the spathe was first unrolled the white leaf was so nearly in opposition as partially to enfold its base, thus giving the effect of a double spathe with edges opposed. A week later the peduncle had elongated and raised itself above the investing petiole, presenting the appearance represented in the accompanying photograph.

So great was the similarity of white leaf blade and true spathe that a casual observer would scarcely have distinguished between them.

SUSAN M. HALLOWELL, Professor Department of Botany, Wellesley College. Wellesley, Mass., June 8, 1889.

Linum Trygynum.

I use the old name, for in most places they know no other, only a very few plantmen would call it *Reinwardtia trygina* or *Macrolinum trygynum*, but I have often seen it called *Linum flavum*, by mistake undoubtedly, for the latter blooms only during the summer months, while *L. trygynum* is a good winter blooming plant bearing bright golden yellow funnel-shaped flowers an inch or over in diameter in great profusion, beginning about the middle of October and continuing well into March.

But in order to get good plants we have to take a little more pains than we do with the more common plants, because they are liable to grow up irregular and without any shape if left alone. They require frequent and judicious pinching during the summer or growing season. A light porous soil and good drainage is essential to their welfare. Cuttings made in April or May of the young growth will make good bushy plants for winter blooming if shifted on as they fill the pots with roots and the pinching back is not neglected. We repot the little plants soon after spring sales are over into 4-inch pots and plunge the pots up to the rims out doors in an open sunny situation, watering and syringing freely every day, for red spider is sure to come forward and take a hold if a spell of dry

weather should set in, and it would seriously injure the plants should they become infested with that pest. Again in August we report most of them into 5-inch pots and by September we stop pinching.

When danger of frost is apprehended we take them in and give a place near the glass. They love plenty of light and will flower profusely in a temperature of 50° or 60°. While in flower water overhead should be applied only on very bright days as the flower buds and flowers are liable to damp off if the water should adhere to them for any length of time, but the sight of such a plant in full bloom is ample reward for all the extra trouble and care we may have bestowed on them during the year.

The plants sell at sight and can be recommended as house plants, for they will continue flowering in a dwelling in light or sunny windows and rather like such an atmosphere. Instead of looking around for new things we should rather see what can be done with our old well known plants. Experiments with new things are not only expensive but very often we get disappointed after great pains and losing much valuable time with them.

Rochester, N. Y. JOHN B. KELLER.

Some New Begonias.

The past few years have seen the begonia family take a front place among popular plants. Much more attention is being given to indoor decoration by the American people each year, and it was quickly discovered that few other plants possess as many fine points for window and conservatory culture as these, the great diversity among them and the almost infinite variety adding much to their interest, while their easy management and general freedom from insects makes them doubly desirable.

In Europe the great number of elegant private conservatories created a great demand for them at once, and they early received very careful attention at the hands of several firms who have since become begonia specialists, and who have produced for us some of the most interesting varieties in the family.

Of all the later introductions few have awakened greater interest or become more widely known than *Diadema*. On the continent it has been crossed repeatedly with *Rex* and already from various sources we find catalogued some twenty sorts of these hybrids which are designated as *Rex Diadema*.

One of the best known of these hybrids is *Lesondii*, a very beautiful free growing kind, already quite generally distributed through this country.

Clementine, one of the newest, is destined to become as popular as *rubra* or *Weltoniensis*, for though not of the flowering section it is as easily grown as the commonest pot plant and is very ornamental, the leaves being of beautiful form and an odd shade of reddish brown combined with olive green and blotched with silver.

Mme. Allamagny is another very decided novelty, having all the general characteristics of the *Rex* in style of growth, stem and leaf texture as well as the peculiar coloring found in that section, a soft grayish green of hollow ribbed and edged with dark crimson; the shape of the leaf is shown in the cut.

M. Charat has also an elegantly formed leaf, beautifully pointed and notched and the color disposed in the most pleasing style: A wide margin shades from brownish plum color to soft green and on



BEGONIA CLEMENTINE.

this are laid, irregularly, circles of silver; the dark center, following the graceful outline of the leaf is crossed by reddish veins.

Adrien Schmitt, also shows a long pointed leaf, nicely notched and lobed and heavy hairy stem, in this variety the silvery blotches are arranged in five bands running lengthwise between the ribs and showing very effectively on the bright green ground; the leaf has an odd, zebra-like, appearance.

Mme. Rival represents a few of the *Diadema Rex* where the *Diadema* blood is shown principally in the upright growth and in the very smooth glossy texture of the leaf.

These five are not noticed as being especially novel in appearance but to give an idea of what is to be found in this class.

Among other Hybrid *Rex* produced by crossing with various ornamental-leaf sorts, *Lucy Closon* is already quite widely known: This is to be followed in the near future by the introduction of a still more marked advance in this line—the very brightest leaved *Rex* in existence it is said. In the meantime, we have among this year's novelties such fine sorts as *Mme. Chate*, *Monge*, *Regnault*, *Richard Tournepont*, *Siebold* and others of like distinctiveness, all of which have been produced by crossing *Rex* with ornamental sorts.

Taken as a group they are most remarkable and we doubt if any other year will give us so many valuable and distinct new varieties.

S. A. HILL.

Philadelphia Notes.

During the past summer the demand for good roses has been better than for several years past. A great many reasons have been advanced to account for this spurt of business, but the prevailing opinion is that the heavy and numerous rains which we had during the season, and which have caused this period in this section to be classed as one of the wettest summers on record, destroyed almost entirely outside plants, carnations, etc., from which we get our bulk of stock for the summer, and therefore the market has not been crowded and the demand has been nearly always equal to the supply. From present indications the prospects for a brisk fall trade are good.

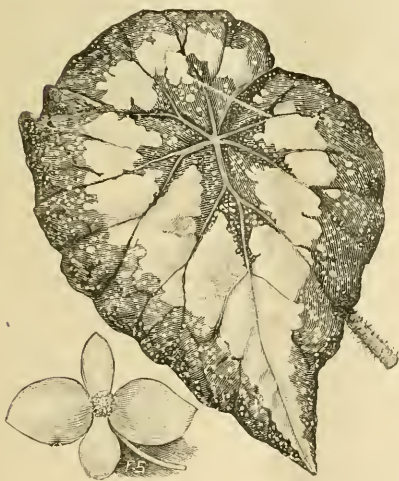
They say competition is the life of trade, but there is always a danger of overdoing matters, and it is a fact not to be disputed that there are more roses being grown around Philadelphia this year than ever before; whether the demand will increase in the same proportion time alone can tell. At present we are passing through what may be called the annual September glut, which is al-



LEAF OF BEGONIA MME. ALLAMAGNY



BEGONIA MME. RIVAL.



LEAF AND FLOWER OF BEGONIA SIEBOLD.



LEAF OF BEGONIA M. CHARRAT.

ways to be expected being the fruits of an abundant first crop with no extra outlet.

A short time ago I made a visit to some of the leading florists' establishments in this vicinity and made a few observations which I trust will prove of some interest to the many readers of the AM. FLORIST.

The extensive place of Mr. Edwin Lonsdale at Chestnut Hill was first visited, and here may be seen a very fine lot of palms suitable for commercial purposes, among which were *Latania borbonica* in 8-inch pots, *Kentias* and *Areca lutescens*, and some 800 *Pandanus utilis* in 6-inch pots. All of these were in good shape and were developing character. The last named, *Pandanus utilis*, is one of the most satisfactory house

plants we have, and if water is kept from the heart of the plant it will last a long time and keep in good shape too. Mr. Lonsdale is also growing quite a quantity of ferns, some of which are planted out to produce fronds for cutting during the winter. *Adiantum cuneatum* and *A. decorum* are the varieties I can recall, and of the latter quite a number were in 6-inch pots. Mr. Lonsdale has an enviable reputation as a grower of that superb rose, the American Beauty, and early in the season he had some planted in a solid bed and they have made a most gigantic growth, greater than I have ever seen before. Among the roses on trial are to be found *Mme. Hoste*, *Duchess of Albany* and *Wootton*; the

latter have made a vigorous growth and are the largest plants I have yet seen. Of *Cypripedium Lawrenceanum* some 500 are receiving particular attention. A lot of *cannas* were planted outside and made a grand display. It is strange that more of these plants are not grown by florists, as they are fine for decorative purposes, and they are among the easiest to grow. A handsome stone residence is being erected for Mr. Lonsdale, and that he may live long to enjoy it is the wish of his host of friends.

Mr. John Burton's establishment is in close proximity to his old friend and former partner's (Mr. Lonsdale), and was next visited. He also is growing palms, and the *Areca lutescens* are worthy of

special mention, as they are exceedingly fine. The new rose known as the "Dreer Rose" is receiving particular attention, occupying a whole house and will be forced early. All of Mr. Burton's roses are in fine condition, especially his hybrids.

Messrs. Craig & Bro.'s mammoth place in West Philadelphia was also visited. Mr. Craig has evidently great faith in the future of the new rose, Vooton, as he has a whole house 22x100 feet planted with this variety, and no rose on his place looks more promising, there not being the slightest sign of mildew, black spot or any other disease on any of the plants and everything betokens the great care which is being bestowed on them. Mme. Hoste occupies a table of 300 feet, while Mrs. Jno. Laing is accorded a whole house to itself and is expected to come in some time in February.

Quite a portion of one of the large houses is devoted to the new varieties which are on trial, and to show how uncertain this thing of trying new roses is, Mr. Craig remarked that if he got one good one out of the sixty varieties he would be satisfied. I noticed Bennett's Cleopatra, but if one is to judge from what has thus far been seen of it it will not be worth very much as it has a tendency to weak growth and mildews very readily. In the same house with the roses just mentioned are some White Perles and 600 Duchess of Albany. I did not see a bloom of the latter but in growth it is identical with the La France and Mr. Craig speaks of it in the highest terms.

Chrysanthemums for cut bloom take up considerable space, there being a table 4x100 feet of Mrs. Alpheus Hardy and a whole house of La Neige, which blooms in October and is perhaps the best early white chrysanthemum that we have for cut flowers. Palms are also grown in great numbers, there being no less than six large houses devoted to them alone. Orchids are not being neglected by any means and among the most noticeable are about 600 Cypripedium Lawrenceanum, nearly every plant showing a flower bud, and as the bloom is good say for three months they will come in nice for the holidays. One advantage of this variety is that it flowers on long stems and is said to bloom several times in the course of a year. C. Bellatulum is in bloom and is very pretty and distinct, but unfortunately the stems are too short to make it of much value for its cut flowers.

Another place of interest visited was that of Mr. George Anderson, on the Darby Road. He has been building again and now has another fine greenhouse added to his already large establishment. The house is 19x100 feet with glass 16x24 inches. Mr. Anderson is a firm believer in the use of rafters, having for the long roof in front 2x6, while at back 2x5 with angle irons $\frac{1}{4}$ x1 $\frac{1}{2}$ x1 $\frac{1}{2}$ about midway, which makes a much stiffer job than iron pipe, which is generally used for this purpose. The trouble with the latter is that it soon sags between the supports and then never gets back to its place again, and if wood was used for this purpose it would obstruct too much light and not look nearly so neat as the angle irons. Mrs. Jno. Laing and Brunner are planted in this new house and all of the roses are looking fine. The Gontiers which occupy a house 22x100 feet are a grand sight and the finest house of Gontiers I have yet seen.

Lansdowne, Pa. W. W. COLLES.



Seasonable Notes.

Where the best results are expected and hoped for from carnations it is important that they should be safely and carefully housed by this time. I have frequently noticed that carnations lifted and housed the first few days of September are much quicker and more satisfactory, every thing being equal, than those lifted later in the month. While the weather late in September is generally liable to be quite moist, which would seem to be favorable to their transplanting, I am still inclined to think that the greater warmth of its early days and nights are a most important offset to the increased moisture later on. My plants of Hinze's White, Silver Spray, Lamborn and other whites that were placed on the benches during the 2nd and 3rd days of September are now looking splendidly and are supplying me with a continuous crop of pure white flowers of the very finest description.

Last fall I expressed an opinion that perhaps I might not grow Hinze's White any more, but when I see what magnificent flowers they are now producing, and how pure white they are, I am not sure but it would be prudent to reconsider the matter.

For the benefit of readers of the FLORIST I will say that these plants of Hinze's White that are now giving me such thorough and unexpected satisfaction were grown from cuttings put in early last October, they were potted off and managed all through the winter and early spring for the express purpose of flowering throughout the summer in place of the very unreliable and transient asters; early in April they were planted in an ordinary six foot frame with a little thoroughly rotted cow manure and plenty of air slacked lime mixed in the soil; they were divided into three lots and stopped at intervals of twenty-one days to ensure a succession of flowers, in fact they were treated in every particular the same as a similar lot were treated the year previous, which began to flower about the middle of June and continued flowering all the summer.

But for some reason or other they acted very differently this summer, the forwardest did not begin to flower until the middle of July, the second lot later, and so on, which I attribute in a great measure to the very great difference in the two seasons. Last year during July and August less than five inches of rain fell in this section, while this year during the same period over sixteen inches fell—a precipitation unparalleled. At all events when September came in my Hinze's Whites had the appearance of just being ready to begin business; they were a solid mass of buds in all stages of development; so they were lifted and housed on the 3rd day of the month.

My other white carnations were lifted the day previous and the two days were as hot and dry as any days of the past summer, and although the earth was so light that when lifted it cracked and fell clean away from the roots I never observed the slightest tendency to wilt or go back among any of them. The same

may be said of my Portias, Buttercups, Grace Wilders, May Queens and other sorts that were lifted on the 10th–15th, all of which were lifted by having a spade placed under them, the plants drawn carefully out leaving the earth behind.

I see that some carnation growers advise earlier lifting than the time I mention, which I think may be good for cooler regions, but I think for this section where we are liable to have the hottest part of the year during the first half of September, followed soon after by a great decrease in temperature and considerable moisture, that the first few days of September is just about right. In these particulars, with the exception perhaps of the time, I fully indorse the practice of Mr. Thos. L. Brown, of Grandville, Mich., whose interesting article in the FLORIST of April 15 last is a whole history to intending carnation growers.

I feel however that I would like to ask Mr. Brown one or two questions regarding his method of pruning with which he concludes his article. Mr. Brown says he believes leaf pruning to be better than stem pruning, and that he cuts and nips off the tops of the young plants soon after they are boxed off and so on throughout the season, seldom pruning however later than July 1. Now I have always noticed that whenever the shoot of a carnation is cut with a knife or nipped off that the center pushes up, elongating itself, and after a while presenting the appearance of having been gnawed by rabbits, and the plants always seemed to me to be greatly weakened by the act. Have I understood Mr. Brown in this particular?

In my own practice I never allow a knife to touch a carnation except in making the cutting and one other case; it sometimes happens that after the carnations are planted out and before they have attained much size that the drought and heat of early summer causes them to throw up flowers, the stems of which have but little or no foliage, these as soon as observed are cut clean off down to the plant with a knife; in every other instance pruning is effected by pulling out the center of the shoot, this causes a circle of shoots to start up around the base of the young plant, and if this practice is continued at intervals throughout the season I find the result to be dwarf stocky plants that just sit on the ground without the smallest sign of a stem. (By the way, let me mention here that if a carnation intended for winter flowering has a stem long enough for the sun to burn its usefulness will be of short duration.)

By this method of occasionally drawing out the centers of the shoots as required my carnations have no perceptible stems, either in the field or when removed to the house. H. E. CHITTY.
Paterson, N. J., Sept. 18, 1889.

The Outlook for Carnations.

We have noticed nothing in the last few numbers of the FLORIST in regard to carnations, and now that the season is at hand for placing the plants in the beds, all growers will be anxious to know what the outlook is for the coming season. In what condition are the plants? Are they strong and healthy? Has the weather in the different localities been favorable to their growth? How does the number grown compare with previous years? What are the indications in regard to supply and demand for cut carnations, etc.?

With us carnation plants go into the



AN INEXPENSIVE BASKET

houses looking rather better than usual. We have devoted one house 20x95 to trying the new varieties which this year number about sixty obtained from various sources and some of which have not yet been placed upon the market. We are growing Silver Spray quite extensively and it promises to be one of the best varieties introduced for several years. Lamborn, Tidal Wave, Geneva, Jaquer Germania, Charmer, Delicata and many others are looking well, but it is too early for anything definite in regard to them yet.

J. G. H.
Grand Haven, Mich.

An Inexpensive Basket.

We have used a great many baskets of this shape; the handle is very well adapted for showy decoration. In this case we used larkspur to good advantage. The basket is oblong and can be filled with comparatively few flowers. In arranging these flowers no wires were used except two or three pieces to attach them to the handle.

A good rule for young men to remember is, roses that have stiff heavy stems like hybrids should stand up and those that have delicate stems like most Niphetos some Mermets and La France should droop. Often do we see this rule reversed with the aid of wire, which detracts from the natural and artistic effect.

H. H. B.

The "Bruant Race" of Geraniums.

This section of the geranium family is awakening much interest among florists, from the fact that robust growing, free flowering varieties are an absolute necessity in the hot dry interior of our country if the geranium is to keep its place as our most popular summer bedding plant, and this fact is clearly recognized by the retail plantsmen.

Varieties that in the lake regions are the perfection of beauty in delicate shades or a mass of brilliant color in the scarlet, standing the blaze of the sun finely, in the section next south of this are a total failure, owing to the entire absence of moisture in the air for long periods of time. If a geranium can be found that proves a fine bedder in the latitude of Cincinnati or Louisville, it will succeed in any section, for nowhere in our country are the summers more trying on bedding plants.

It is believed that such a geranium has been found in what Monsieur Bruant is pleased to style the "Bruant Race." The variety Bruant was distributed in 1885, and by 1888 he had collected and classified under the head of "Race Bruant" no less than 32 sorts of this distinctive type, some twenty of them being of his own raising, the others originating with such men as Delaux and Boucharlart, and extending back over some ten years of time; singularly enough *Heteranthe* does not

appear in this distinguished company, although distributed by Lemoine in 1877 (having been raised by Boutard), and so similar to Bruant that they have been frequently pronounced identical.

In 1888 one hundred plants of each of these two varieties were grown in an oblong bed, the only difference discoverable being that Bruant was slightly the dwarfier and a shade deeper in color; in freedom of bloom and in habit there was no difference, and only a careful observer would have noted two varieties in the bed. Any florist having either Bruant or *Heteranthe* has before him a good type of the "Bruant Race;" of course if he have "Double Gen. Grant" he has also the type as that is conceded to be *Heteranthe* renamed; by whom? is an interesting and an open question. Those unacquainted with these two sorts will find many of their characteristics in the old original double scarlet varieties; a broad short leaf, often 5x4 inches, of heavy texture, strong stocky stems and leaf stalks and abundant vigorous growth.

The hybridizers have improved upon these discarded varieties, giving us shorter joints, a finer leaf texture, in some cases a rudimentary zone, great freedom of bloom, a compact habit, while retaining all the sturdy vigor found in the originals. And this is their distinctive point; the strong, heavy growth and iron constitution which carry them brilliantly through our trying hot weather, a mass of cool bright foliage overcrowned by a magnificent show of bloom on tall heavy footstalks.

New colors are not claimed as yet by any of the race, though there is no telling what Mr. Bruant or his confreres may be able to do for them in this line in the future, but in the colors represented by them they are unsurpassed for clearness and softness of shade; as yet reds and scarlets are the prevailing tints, although a departure has been made and we have two or three more than ordinarily good pinks and several magnificent salmons which are unsurpassed in the entire geranium family. As to the size of the bloom it is in proportion with the fine growth of the plant; nearly every variety carries a grand sized truss; the florets are borne on long pedicels which prevents their crowding; two sorts carry unusually large flowers, the florets by actual measurement being 2½ inches long by 2 inches wide, of almost pansy form; other varieties average about 1½x1½ inches; the florets are circular in only a very few sorts, the majority show a slight separation between the two upper and three lower petals, many of them being similar to the finer varieties of ivy geraniums in form; in all the single varieties the three lower petals are beautifully concave or shell shaped.

And this brings us to another distinctive feature; only three or four sorts show any departure from the single form; *Heteranthe*, Bruant and Dr. Thouvenot generally show enough petals to be classed among the semi doubles, though frequently coming single; several varieties carry six petals evenly arranged, giving the flower a beautifully rounded, finished appearance, and the single flowers are noticeable for holding their petals finely when cut, quite as well as the ordinary semi-double.

It goes without saying that geraniums of this class beside being unequalled as bedders make extra fine pot plants also, and doubtless the next few years will add to their ranks "fancy" sorts as finely colored and marvelously tinted as *Gloire de France*, *L'Immortelle* or *Poete Na-*

tionale of the ordinary type, while M. Alfred Mame and Mrs. E. G. Hill will, we think, never be surpassed in their particular line. Already quite an extended list of "Bruants" are found catalogued, and below the color of a few of the most noticeable is indicated:

Dr. Thouvenot, semi-double—soft rosy scarlet.

J. Chretien—rosy carmine shading to soft scarlet.

Le Cid—A shade nearer scarlet than J. Chretien, flonet circular.

Georges Ohnet—Brilliant scarlet.

Barbiset—Two upper petals white for half their length shading into Hermosa pink which is the general color.

M. Noury—Very beautiful rose color with tinge of lilac.

Del Rosso—Magnificent salmon, white center, shading to light lines about the center.

M. Alfred Mame (2½x2 inches)—Soft sub-scarlet, lower petals shading to salmon in the center, which is deeply veined crimson.

Francis Arago—Soft salmon pink shading to high tone of salmon in the center, beautiful glistening texture.

Mrs. E. G. Hill (2½x2 inches)—The center of each petal is a soft light salmon bordered with rosy salmon and veined deep rose. Frequently throws six petals.

Leviathan—Brilliant red with touches of orange at the center; one of the very best in the series.

M. Emile Barre—Circular flowers of lovely vermilion shade, very pleasing.

Mme. Blanche Moulas—Large salmon flowers beautifully bordered with white.

S. A. HILL.

Propagating Geraniums.

The method followed at Lincoln Park, Chicago, by head gardener Stromback, is to take cuttings from bedded plants in latter part of September. The cuttings are pretty well trimmed and placed in the sand beds in the greenhouses, the sand having previously been well wet down. After being placed in the sand they are watered along the rows to settle the sand around them and no more water is given them for about ten days or until the cuttings are calloused, but in bright weather they are syringed occasionally if the foliage gives indication of wilting. But until the cuttings are calloused he aims to give them just as little water as possible and not very much more after that until bottom heat is supplied and more liberal waterings are necessary. He believes that more geranium cuttings are lost and injured from overwatering than from any other cause, especially in fall propagation.

That "Remarkable" Geranium.

In 1882 Mr. Thorpe in making up catalogue copy classified the geraniums into colors, and under the head of deep purple shaded flowers or in other words base of flowers red with deep purple shading—we find Remarkable along with Ernest Lauth which is nearly identical with it in color.

Remarkable is one of Mr. Thorpe's "chickens" which I remember very well from the seedling plant. It was sent out eight or nine years ago and the remarkable part is that with all the new varieties and improvements offered during these years there has not been one of the same shade to take its place.

W. P. SIMMONS & Co.

Diseased Asters.

The immediate cause of asters dying off as mentioned by F. A. D., is the work of an insect which is a bright dark green bodied fly about ⅜ of an inch long when perfect. The female punctures the stem and deposits an egg close to the ground line, the egg is hatched and the larva begins at once to eat and work its way up the center of the stem, sometimes for only an inch in height, oftener for two or three inches when it emerges. The plants so stricken generally die within three or four days. I believe this is the same insect which ruins the stems of chrysanthemums about the same season.

During the past season I have lost nearly one-third of my carnations in the open ground from a similar insect, though I believe it is not identical. I tried as a remedy tobacco dust and slug shot, but with indifferent success.

JOHN THORPE.



Seasonable Notes.

Buds will now be the desideratum of most growers it is presumed; to get these clean, bright and of good size it is necessary to keep the plants as clean as possible and all insects should be destroyed as soon as seen. Green fly will be one of the most troublesome at this season, and as burning the stems invariably destroys the color of the flowers it will be necessary to adopt some other means such as recommended by Mr. W. J. Palmer at the convention of the S. A. F. in Buffalo last August; where the pipes are made hot enough to evaporate the tobacco juice it is perhaps the simplest and easiest way to keep down this pest. Where such an appliance can not be used then resort must be had to some other means, such as laying stems through the walks, etc.; but the tobacco now contains something very obnoxious to plant life if it is allowed to come in direct contact with the roots, therefore it is not advisable to lay any stems directly on the soil; in the past we have found no difficulty in keeping the hoses clear of green fly by putting stems over the walks, changing the same about every six or seven weeks, but there are two objections to this method, first it keeps the house in an untidy looking state all the time, and the second is the expense, where the stems cost much it means a considerable sum for each year. We tried several experiments last season with the vapor system as recommended by the English and French growers, i. e., boil the stems till quite a strong liquid is produced, then evaporate the same in the greenhouse by slow boiling over a charcoal fire or lamp, but so far as we tried it did not find it a success, but hope to continue the same this season and possibly may learn how to do it right, should we do so will give your readers the benefit of it.

Where the plants in benches have made a fair start to grow a very thin mulching of well decomposed cow manure (not over half an inch thick) will help them and should be put on as soon as possible, particularly where the shallow bench system is followed. Some still think that

green cow manure is just as good or better than old material, but frequently we hear of some one who gets hit pretty hard by using it and then comes the old proverb: "Locking the stable door after the horse has been stolen," but my advice is keep it locked and barred tight all the time. Keep all dead leaves, weeds, etc., constantly picked off the plants and surface of the soil, and where the plants are not already tied lose no time in doing so, as it makes very considerable difference in the value of the crop whether the buds have long straight stems or crooked short ones. The latter are almost sure to be the result if the plants are not carefully tied up and the stems kept straight while growing and forming their buds.

JOHN N. MAY.

Rose Her Majesty.

Having noticed an inquiry or two lately in the FLORIST in regard to rose Her Majesty, I send you my experience with it.

I planted out two small pot plants of it three years ago. They grew finely—say five feet the first season—but did not bloom that year nor the next summer, though well headed in. Last fall I pruned to two canes each, left these nearly six feet long, laid them down and covered them. This spring I took the covering off and left them laying on the ground till eyes had well broken all along the canes, some of them showing buds. I drove a stake to each, tied them up, and they certainly well repaid me for the care bestowed on them. People would stop on the street and try to find out what they were. The flowers were immense and the color was if anything more like La France than the deeper pink it was represented to be.

One plant is now nine feet high and though it has some mildew and has not bloomed this fall I am satisfied that it will be on hand next spring.

Bloomington, Ill. F. A. BALLER.

To Keep Down Greenfly.

At the Buffalo convention Mr. W. J. Palmer described his method of keeping down greenfly without fumigating. He has found it very effective and free from the objections to fumigating. He places a liberal quantity of tobacco stems in a barrel and then fills it with water. After steeping for a day the tobacco liquor is evaporated in little troughs (see sketch) attached to the steam pipes. He fills these pans with the liquor about twice a week and has no trouble from greenfly. Larger troughs attached to hot water pipes answer the same purpose.

Rochester Notes.

BY WM. FALCONER.

On my way to Buffalo I stopped over a day at Rochester, a city of great horticultural interest, and at once made for

KIMBALL'S GREENHOUSES,

where George Savage is gardener.

Mr. Kimball is a very wealthy gentleman, a devoted horticulturist, a specialist in orchids and has one of the most valuable and complete collections of these floral jewels, not only in America, but in the world. "Kimball's greenhouses" are one of the sights of Rochester and are freely open to the public. They occupy a large block on the outskirts of the city, and are easily reached by horse cars which pass the door. Mr. Kimball's residence is some distance away from his greenhouses.

George Savage I have known well for nearly sixteen years. He is one of the best plantmen and orchidists in this country, and a universal favorite in Rochester. When George Such's great nurseries at South Amboy, N. J., were in their zenith Mr. Savage was propagator there for several years; then he went to Philadelphia, and to England, and back to South Amboy to the Rathbone greenhouses, and in a year or two succeeded Mr. Clements as the general manager of the great Such nurseries. When these nurseries were broken up Mr. Savage engaged with Mr. Kimball, and here he still is, honored and respected by everybody.

Glazed orchid pots were used in large and small sizes, in ordinary, pau and basket forms, for bench work and suspended from the roof, and Mr. S. tells me that orchids do just as well in them as they do in soft, porous pots, and they

around by Mr. Kimball's house—the finest mansion in Rochester. The gardener there was in great trouble. In a large bed filled with sub-tropical plants some playful street dogs the night before must have had a jolly good time, and in their romping broke many plants and scraped out a hole big enough to bury a sheep in.

ELLWANGER & BARRY'S NURSERIES

are one of the most noted on this continent, not only for fruit and ornamental trees and shrubs but also for roses and hardy herbaceous plants. Like most large nurseries of the kind large tracts of ground here and there and a good many miles apart are devoted to the growth of young trees, but the home nurseries are right in the border of the city and the horse cars run past the office door. The propagating houses and frames, the hardy plant department and

past for a sunflower and a favorite with those who know it.

The old fashioned Goldlocks (*Chrysosoma linosyris*) was a pleasant plant to run across. Here I found a bed of it in full bloom. It is a hardy perennial, native of Northern Europe and perfectly at home with us. Its flowers are yellow in terminal corymbs, and its stems and branches well clad with fine narrow leaves. It grows about fifteen inches high and is increased by division or from seed.

VICK'S

is one of the floral sights of Rochester. At the home grounds are the warehouses, greenhouses and experimental grounds; a mile or two away is a considerable acreage devoted to gladioluses, tigridias, tuberoses, small fruits and other stock; and seven miles distant is the seed farm, which then was one of the gayest sights that could well be imagined. Drummond phloxes, verbenas and China asters were in their very finest blooming condition; and there were also large tracts of dahlias, zonal pelargoniums and other florists' flowers. Acres upon acres in an unbroken mass were covered with these plants in full bloom. Considering how cheaply many of these seeds, Drummond phlox and zinnias for instance, can be purchased at wholesale rates in Europe, it seems strange that it would pay American seedsmen to grow their own seeds, but it does in this way—they are absolutely certain of the kind and quality of the seeds they have got.

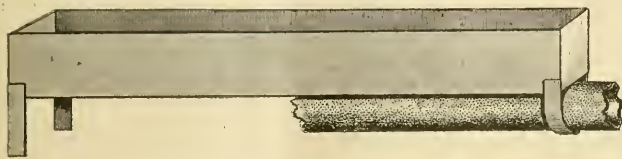
Comet asters were finer than I ever before had seen them. The flower heads were immense, anemone quilled in the center and with broad flowing outer rays, and they well maintained their reputation of being among asters what the Japanese varieties are among chrysanthemums.

Triumph aster still needs selection; some are very fine and others poor enough. Being so dwarf doesn't help it any. In my opinion a far better aster is one they call Fire King, it is of much the same color, but larger and taller.

Burpee's White Queen aster is a splendid variety with very large, full double, pure white flowers, that are copiously borne on stout stalks. But although the plants are pretty dwarf they have none of the stiff bunchy appearance of ordinary dwarf asters. I, myself, have grown it for two years and unhesitatingly recommend it.

The dwarf zinnia is a forlorn little wretch. It is dwarf enough and the flowers are stuck close into the little bushes, but the plants are of irregular size and a large number of them have poor, watery flowers. I grow it myself and my own plants of it are as miserable as anybody's. But with long and careful selection and isolation I am confident we can obtain a strain of dwarf zinnias of even size and habit, and having full double brilliant blossoms.

Miniature sunflowers were grown and a stout variety has been added to the list, but in my opinion it partakes a good deal of the coarseness of *H. lenticularis* and is not as desirable as the pure "miniature" which is the true *H. cucumerifolius*. It is a capital decorative plant. From seed sown in April and June I have it in bloom all summer long. I also found *H. Maximilianus* being raised from seed. This perennial species is somewhat scarce in cultivation, and is considered a little tender much north of New York. But it thrives splendidly with us on Long Island and where it blooms about the last of



TROUGH FOR EVAPORATING TOBACCO LIQUOR

have a great advantage over ordinary flower pots in never getting green and dirty.

The water lily house is one of the features of the place. It is about 80 feet long by 22 feet wide, and in the middle is the water tank which is about 60 feet long by 16 feet wide and 4 feet deep in the middle and grading to 2 feet deep at the ends. The Victoria regia used to be grown in this tank, and it grew and flowered well, but it fell into disrepute on account of the vast amount of room it occupied and the short space of time it lasted in bloom. It used to crush the nymphæas clear off of the pond, then as there was no room for both it became a question which one of the two should be retained, and the nymphæas were chosen. These are in bloom all summer long. There are day bloomers and night bloomers, white, blue, rose, purple and red species and varieties. Among the most vigorous were *N. Zanzibarensis* rosea, *N. Z. azirea*, *N. rubra*, *N. Devonensis*, *N. dentata*, *N. cœrulea* and *N. stielata*. Mr. Savage lifts and replants them every year. For soil he uses good, rich, fibrous loam and plenty rotted barn yard manure with a good layer of clean sand on top to purify the water and prevent muddiness. *Nelumbium speciosum* is well established at one end of the tank and so obtrusive had it become that a 4-inch brick wall had to be built in the tank to separate it from the nymphæa quarters. Aphides are quite bothersome on the water lilies, especially on the stems of the *Nelumbiums*, and it takes a couple of good doses of tobacco smoke at a time to dislodge them. One end of the house was decorated by a mass of palms and other fine foliage plants, and the other by a thicket of vines in bloom, for instance, allamanda, bougainvillea and *Aristolochia elegans*. This *Aristolochia* was beautiful and very copious. As a pot plant, Mr. Savage tells me, it never attains the vigor that it does when planted out.

No fences, no flower beds; we called

the specimen and stock plants of ornamental and fruit trees are all contained in the home nurseries.

The propagating frames are within a hedge enclosed square and consist of ordinary cold frames, with a muslin shading supported over them and some four feet or more above them. Cuttings of many shrubs and roses were rooting in the sand in the sash-covered frames.

A large bed of delphiniums in full bloom was one of the gayest sights in the nurseries. Our delphiniums on Long Island were past long ago; evidently these were young stock raised from seed last winter or spring and afterwards planted out. And they find as I and some others find that we can raise as good a strain of delphiniums here as we can import from France, providing we exercise careful selection and crossing.

Of phloxes in bloom there was a very fine display, masses upon masses of the various sorts were grown in the long borders on either side of the broad grass walk, so that we were able to see and distinguish the varieties from a distance as well as near at hand. Among the red eyed ones Richard Wallace was fine; Lothair, Isaby, Mme. Kamper and Oberon among the reds, and Parrai, rose, were also strikingly distinct. The plants in bloom were of last winter's propagation and set out in spring.

Rudbeckia speciosa (Neumanii) was in full bloom and the brightest and best of all seasonable yellow flowering hardy perennials. It grows two to three feet high from a compact tuft of leaves, is neat and without any of the coarseness or straggling habit of some of the other members of the genus, and a stock of it is easily gotten up from seed.

Helianthus rigidus was grown in mass and it was in full bloom. It is a hardy perennial, three to four feet high when in bloom, and bears moderately large, bright, golden yellow flowers. Although it grows wild in the Atlantic States it is not common in gardens, but it should be, for it is a neat and showy plant, com-

September and first of October, and we consider it one of the finest of all sun-flowers.

Amaranthus Henderi, upright and pyramidal in habit, with crimson foliage and branches tipped with variously colored fiery foliage was conspicuous as one of the most brilliant of all the showy race. And what a contrast from the host of weedy wretches of love-lies-bleeding and prince's feather *Amaranthuses* that nowadays are included in flower novelties. Indeed this rubbish is enough to alienate stout hearts from the whole family.

Plum purple fruited peppers are, I should think, to be one of the novelties we may be treated to next year. I found it at Vick's, and I came upon it in other places too. The plant is a very moderate grower, with somewhat violet purple flowers, much resembling those of a solanum, and the fruits are cayenne pepper shaped, plum or violet purple in color and only moderately biting to the taste. Good enough as a transient novelty, but I don't think it will ever hold a permanent place either among culinary or ornamental plants.

Of the old shell flowers or *Molucca balm* (*Moluccella laevis*) I observed a large patch in full bloom. This is a very interesting annual from Syria, and one that was in common cultivation in gardens long before I was born. It is a neat, odd appearing plant, but not at all showy, and it has an "herb" fragrance. Its dense whorls of large, open, shell-like calyces which are green and much netted veined are its main attraction. A few years ago the *Rural New Yorker* advertised and distributed it widely among its subscribers.

BATAVIA

is a station between Rochester and Buffalo, and is remarkable for its beautiful garden. Right alongside of the railroad track is a long narrow strip of lawn as fresh and smooth and dense and well mown as that in any private garden in town, and in it are cut out a series of flower beds that are as neatly and well and tastefully filled as those of any professional florist could be. Railroad stations are gloomy enough, and any tasteful decoration of this sort is admired and appreciated by the traveling public, and a delightful memory.

Palms and Like Decorative Plants.

BY ALFRED E. WHITTLE.

No aspect of the development of our business in this country is more noticeable than the growing and selling of palms, ferns and other decorative stove and greenhouse plants.

This development is substantial ground for believing the wealthier classes of our large cities are becoming so accustomed to the adornment of the home with fine plants—not only upon festive occasions, but as a part of every day life—that this expense is not looked upon so much as a luxury as a necessity. Even in the smaller towns and villages—where formerly not a cent would ever be expended upon any such object—it is now considered quite an essential part for wealth, to decorate with plants at weddings and balls.

To meet then, this growing demand—not only to meet it, but to encourage it, and in some instances to create it—increasing numbers of palms, etc. are being grown and distributed all over the country. Plants of this class grown in the States must have increased during the past ten years more than 100 per cent. As statistics have never been kept

upon this interesting increase accurate data to base assertions upon can not be obtained, but observation should certainly verify the above statement. When one witnesses the thousands and thousands of palms and ferns that are grown in such profusion in the larger establishments it is a matter of wonder where they all go to, and for what purposes so many can be used.

Another feature of this trade in decorative plants is the increasing use of palms and other large ornamental foliage plants for the decoration of the lawn and flower garden in summer. A bed of this nature seen this year at Saratoga, prepared by Mr. Totten, is somewhat of a revelation as to the possibilities of this method of decoration. This is an immense head—oval in shape—filled with large and medium sized palms, pandanus, dracaenas, crotons, ferns, etc. The effect is most striking, and in the writer's opinion far surpasses in an artistic point of view, the unnatural results of carpet bedding. This instance is mentioned as an illustration of what may yet come. For, if such bedding ever becomes general a great increase in the demand might certainly be expected, and it is to be hoped that there will be systematic efforts to encourage their extended use for this purpose. The plants receive no harm, for they not only make growth but become hardened for winter work.

Among the many large establishments where palms, etc. are grown in considerable quantities, the one owned by Siebrecht & Wadley, of New Rochelle, N. Y., ranks with the best for system, size and the general welfare of the plants belonging to it. The houses are built substantially, evidently for the object for which they now are used. One large house for specimen palms is especially noticeable for its size and solidity of construction. Considerable money has been expended of late years in improving the grounds and the buildings erected upon them, for the purpose is to be ever on the alert to increase the total efficiency.

The houses are heated by hot water, but it is Mr. Siebrecht's intention to try the changing of his present system to heating by steam, retaining, however, the 4-inch cast iron pipes formerly used. Under the low pressure system of steam heating such pipes can be used, but they must be laid with care, so that all the water may be returned to the boiler without meeting any obstruction on its way. If Mr. Siebrecht carries out his plan and can arrange these pipes so that there will be perfect circulation, it will be interesting to know his experience, for there is no doubt many would change from hot water to steam could the old pipes be utilized and one item of expense be thus reduced. The writer can testify that 4 inch cast iron pipes will answer for the circulation of low pressure steam, as some houses formerly under his charge were heated with such pipes, but owing to defective arrangement, the result of inexperience, they were not entirely satisfactory.

One peculiarity of the present system of raising and growing palms, as practiced here, and which has before been incidentally alluded to in these pages, bids fair—if present success is any criterion—to completely revolutionize existing methods. The allusion is to the undertaking so lately commenced, a nursery for palm raising at Trinidad, and when a salable size is attained forwarding these palms in large quantities to the greenhouses at New Rochelle. Mr. Siebrecht speaks in the most enthusiastic

terms of the probable future success, and well he may do so, to judge by a lot of specimen plants of *Areca lutescens* which have but lately arrived from this island. Magnificent plants these are, without exception the finest at present in the market.

It has been customary with some growers, in order to quickly raise large plants of this palm, to place when potted, one large plant in the center of the pot, with two or three smaller ones around it. As these grow they fill up rapidly, thus becoming much more bushy than by growing a specimen from a single plant. These areas from Trinidad have the appearance of a dozen plants placed in one pot, and such were they supposed to be by the writer, until informed that each specimen was only one plant, but which had thrown up suckers in such wonderful profusion. The growth of them all, too, was so symmetrical and graceful, quite unlike the plants of *lutescens* that are generally seen. If such specimens can be grown from small plants in two or three years, a striking evidence is at hand proving that the market will eventually be governed by the stock of this tropical nursery.

Another palm, *Rhapis flabelliformis*, which at present commands somewhat high prices on account of the time it takes to bring it to a decorative size, can also be grown on this island quickly and in quantity. *Kentias* also are at home and many thousands are being prepared for this market. *Pandanus Veitchii* is another plant which is always in demand, and of which there is never sufficient stock to supply all needs. The future, however, will witness a very large increase in the number that can be purchased, for at Trinidad they grow like weeds, furnishing the propagator with an unlimited supply of suckers.

When this system is perfected and seeds are freely produced from palms left for that purpose, thus guarding from loss that would arise from unripened and imperfect seed, the only limit to the number of palms raised and marketed will be the condition of that market. The shipping for the care of these plants in transit is not yet all that is desired, but it was stated that new steamers will soon be launched, built for the Trinidad trade, and which have been designed with the view of ample and proper accommodation for whatever plants may be on board during the voyage. Even if, under these conditions, there should still be part failure experience teaches us that the inventive mind of man will eventually overcome all obstacles of this nature.

As there are fully 2,000 *Pandanus Veitchii*, nice, salable plants, now in the greenhouses, some idea may be gained of the way that stock will increase as soon as existing methods are improved. A fine lot also of dracaenas and crotons, the quality of the plants being very creditable to the grower.

Among the palms which Mr. Siebrecht pointed out as quite desirable for decorative purposes two or three may be especially noted on account of their graceful appearance, and because they are strongly recommended for their hardy natures. These are *Thrinax parviflorum*, *Martinezia caryotafolia* and *Caryota sobolifera*. The latter species instanced as being superior to *C. urens*. There are many handsome specimens in the large palm house, the largest of their kind in the country, and it is a marvel how such immense plants can ever be taken to New York for use in decoration in the

cold of winter, and yet brought back not seriously injured.

Rose Hill Nurseries have long been noted for the large collection of orchids grown there. All are looking well, and for a commercial place, very well. They all show the care that has been spent upon them; though grown in such large quantities very few poor plants can be seen. For another instance of the quantities handled it may be mentioned that on the benches are over 2,000 *Yucca Skinnerii*. One may well say, "Where do they all go to?" Yet the fact was stated that not an orchid flower has been wasted.

Some cattleyas in flower were of fine form, especially *Loddigesii* and *superba*. Summer blooming cattleyas are not always considered desirable, but their flowers can be used to advantage though they do appear when the demand is generally light. The pretty free flowering *Miltonia spectabilis* was in good condition, and its large, showy blossoms made quite a display. Quite a collection of stauheas were noted, and as Mr. Siebrecht can succeed in keeping the flowers fresh when cut for a week or ten days they prove very useful to him. No better *oncidium* can be found for florists' work than *varicosum*. It flowers frequently and the blooms are so satisfactory. One of the most noticeable of the orchids in bloom at Rose Hill.

Other orchids worthy of remark were some exceedingly fine plants of *Dendrobium Dearii*. Seldom is this dendrobium seen in such excellent condition, and it is gratifying that it can be so, for the flowers have so many good qualities to recommend them to our favor. Also large numbers of *Cypripedium Spicarium*, *Vanda teres* and *Odontoglossum vexillarium*, all in good growing condition. *Phalenopsis*, that are always difficult to grow, were in vigorous health and well established.

Among the many ferns grown here *Adiantum Farleyense* finds a conspicuous place. A beautiful lot of well grown, marketable plants. A *pteris* called *Mayii* seems desirable, *Nephrolepis davallioides* is also another fern that is evidently an acquisition.

A feature of the management is especially deserving of notice and commendation. It is usually the case for owners to consider that all responsibility ceases towards employees when their wages are promptly paid. Any concern as to their welfare out of business hours is not a subject for general consideration. But in this establishment some thought regarding a higher standard in the treatment of the workmen is evident. A pleasant room is set apart for the men, to be used for the purposes of reading and writing. Some of the gardening periodicals are furnished. It is the intention in the future to develop this idea, and by degrees to gather a professional library. This idea is well worthy of thought. The more thoughtful the workman the better the work. It is to the pecuniary advantage of the employer to expend some money in providing food for the minds of his men. Too little is done in this direction; less in this country than in England. We all know what it was in our youthful days; with nothing of much moment to occupy the mind through the long winter evenings, pleasure naturally became the only object of leisure hours. A workman whose evenings are devoted to resting the body, but laboring energetically to cultivate his mind, is worth far more during the hours of labor than he who gives all his thought

to the indulgence of the pleasure-loving habits that are ever ready to allure the most of us.

There are so few opportunities available to the young men working in greenhouses for encouragement in study that when a step has been taken with this end in view, it certainly instills the hope that the purpose may not rest only in commencement, but that every effort will be put forth to establish a model library and study room. Much more might be said upon this topic, but further remarks in connection with this thought will be left for another paper.

Boston.

Benj. Grey has a magnificent house of *Pandanus Veitchii*.

The next meeting of the Gardeners' and Florists' Club will be devoted to a general discussion on "bulbs." This is quite a broad subject and there is no doubt the time will be well occupied.

Much disappointment is expressed among *chrysanthemum* admirers and others who like to visit their friends in other cities and to receive visits from them, because the *chrysanthemum* shows for Boston, Orange and Philadelphia have all been arranged for the same date. This looks like poor management. Can not something better be planned for next year?

Mr. Edwin Fewkes, a well known and much respected florist of Newton Highlands, died at his home on September 16. Mr. Fewkes was for many years a prominent member of the Mass. Hort. Society. He was a quiet, genial gentleman and had many friends. His son, Mr. A. H. Fewkes, is well known as a prominent *chrysanthemum* grower.

The cut flower market shows a slight gain, but fall trade seems to be unusually late in starting. The roses now coming into market show a decided improvement over the summer crop. Asters are not so plentiful and gladioluses and Japan lilies are about finished. Of carnations there are just about enough to supply daily demands. *Smilax* is rather overstocked. The demand for *adiantum* fronds seems to increase, but there is a large supply of first quality. The demand for lily of the valley and tuberose is very small as yet. Reports of *chrysanthemum* prospects vary very much, some promising fine displays, while others predict general or partial failure of the crop.

W. J. S.

ST. PAUL.—The lowest temperature recorded by the signal service here was 35° on September 18. But gladioli, dahlias, etc. have been frozen within the city and slight frost has been reported from other points in the state.

SITUATIONS, WANTS, FOR SALE.

Advertisements under this head will be inserted at the rate of 10 cents a line (seven words) each insertion. Cash must accompany order. Plant ads. not admitted under this head.

SITUATION WANTED.—By a lady to learn retail flower trade. Acquainted with bookkeeping. D. R. BERT, 955 Wentworth Ave., Englewood, Ill.

SITUATION WANTED.—By a first class gardener who speaks several languages. Best references. CARL GEHARDT, 1033 S. California Ave., Chicago.

SITUATION WANTED.—By a first class orchid grower. Experience in England, France and Germany. Good references. N. K. 74 Cypress St., Rochester, N. Y.

SITUATION WANTED.—By an experienced florist, private or commercial; age 39, single; States preferred. Reference. Address K, care Postoffice, Toronto, Canada.

SITUATION WANTED.—As gardener; single; age 32; thoroughly understands the business in all its branches. Can produce first class references from several of the leading families in England and Ireland. R. W. D., Newport post-office, Newport, R. I.

SITUATION WANTED.—By practical florist and gardener; second class rose, carnation and violet grower; now disengaged. Good references. Address: J. H. W., 110, Norwich, Conn.

SITUATION WANTED.—By a lady, at cut flower work; 8 years' experience in the work Johnston trade—now destroyed by flood. Address: EASY, Maple Line, Johnston, Pa.

SITUATION WANTED.—By a middle aged single German florist, good references and cut flower, with 10 years' experience in this country. Address: G. M., 74 Cypress St., Rochester, N. Y.

SITUATION WANTED.—By a florist from the 1st of November to the 1st of April. Practical experience in greenhouse and cut flower. Address: Box 55, Cape May City, New Jersey.

SITUATION WANTED.—By a Scotchman as gardener in the west, California preferred. Single; age 21. Private or commercial; good references given. Address: GEORGE ANDERSON, care Robt. Marshall, Swanhurst, Newport, R. I.

SITUATION WANTED.—By a single man as head gardener in commercial or private place. First class cut flower grower and planter; 16 years' experience; age 32; speaks English and French. Address: HANS SCHMALZ, care American Florist.

SITUATION WANTED.—Competent florist and gardener, experienced in all branches; open for engagement at once; private or commercial. Particulars given upon application. Address: J. K. KREMER, 100 Calumet St., Philadelphia.

SITUATION WANTED.—By a Swedish gardener, 25 years of age; single; 8 years' experience in orchids, palms, ferns, roses, propagating and general gardening. Exceptional and reliable references and testimonials from prominent European gardens and last employer in the state. N. JOHNSON, 47 Ridge St., Glens Falls, N. Y.

WANTED.—Ten horse power engine and pipes and everything complete for hot house 140 x 16. Send price, etc. to LEWIS K. KINNEY, Gloversville, New York.

WANTED.—A man who understands low pressure steam heating and is good at greenhouse work. Also a gardener who is well posted in all branches. Address: HENRY MOORE, 41 Beale Street, Memphis, Tenn.

WANTED.—By thoroughly practical florist, position as superintendent private or commercial place; good salary required; first rate references. Address with particulars: ALPHA, care American Florist.

WANTED.—A first class florist; a good propagator of roses, and one well up in the art of cut flower work. Will require first class reference. Will insure a good man a permanent situation. Address: A. GIDDINGS, Danville, Ill.

WANTED.—Experienced commercial florist as assistant foreman; married man preferred; one of executive ability, experienced in filling orders and capable of taking full charge of order and packing department is required. The applications of only first class men will be entertained who furnish good references. HENRY A. DREER, lock box 103, Philadelphia.

FOR SALE.—Two No. 15 Hitchings Boilers and 410 cast iron pipe. T. R. HOPKINS, St. John, N. B. Canada.

FOR SALE.—Five acres, two greenhouses 18 x 100, shed, stable, dwelling, etc.; all new; two miles from Denver. Our sunny climate is recommended for its healing qualities. Box 10, Montclair, Colorado.

FOR SALE.—200 feet 4-inch pipe, fittings such as tees, elbows, valves, etc., one new Ziegler boiler capable of heating 1,000 feet 4-inch pipe at very low price to close out. J. NEWMAN & SONS, 51 Tremont St., Boston, Mass.

FOR SALE.—Seven years established florist business, three greenhouses, 1/2 acre of ground on street car line, centrally located. The collection of plants; winter roses in 30,000 connections; but little competition; nursery in connection. Address: GEO. B. BOYAN, Pueblo, Colorado.

FOR SALE.—A good established florist business in a city of 100,000 inhabitants; 350 feet of glass, good stock greenhouse and bedding plants; city water; houses heated by steam; all in good repair; business paying well. Good reason for selling. MRS. GEO. LOW, Stillwater, Minnesota.

FOR SALE.—A rare chance for gardeners and florists. A well established and remunerative business, consisting of adjoining lots in city, with a good dwelling, barn, 2 greenhouses with hot water furnace, a good well and hydrant water supply, 5 acres well cultivated vegetable garden, within 1 mile from above mentioned premises, a large lot of choice plants, bulbs, trees, 1 1/2 horse wagons, water, sleigh, cultivation, saw, and other implements for sale at a bargain. Apply early to MRS. MAGALENE DINGER, Eau Claire, Wis.

FOR SALE.—Two Wilks heaters, second-hand, and good as new. One large size and one small one. Address: L. P. VOORHEES, box 413, Blue Island, Ill.

REQUEST.—Will the Secretaries of the various Clubs and Societies which contemplate holding a flower show this season please mail a premium list with rules and regulations, and address to C. B. WHITNALL, Milwaukee, Wis.

THE AMERICAN FLORIST

Subscription \$1.00 a year. To Europe, \$1.50.

Advertisements, 10 Cents a Line, Agate;
Inch, \$1.40; Column, \$14.00.
Cash with Order.

No Special Position Guaranteed,
Discounts, 3 months, 5 per cent; 6 months, 10 per
cent; 12 months, 20 per cent.
No reduction made for large space.

The Advertising Department of the AMERICAN
FLORIST is for Florists, Seedsmen, and dealers in
wares pertaining to those lines ONLY. Please to
remember it.

Orders for less than one-half inch space not accepted.

☞ Advertisements for October 15 issue must
REACH US by noon, Oct. 9. Address

THE AMERICAN FLORIST CO., Chicago.

WHY IS it that many people have an idea that florists' flowers are a most expensive luxury which can be indulged in only by the very wealthy? Because they see frequent items in the daily press stating that "Jack roses are now \$2 each and other roses cost \$10 a dozen" and "at a recent wedding the florist received \$5,000 for the floral decorations," or "at the funeral of the Hon. ——— the flowers and designs supplied by ——— the florist alone cost \$2,000." Where do the reporters get these sensational items? In the majority of cases from the florist. Why does the florist add a cipher or so to the amount when giving such information? Because the one who is so indiscreet as to name figures received usually amounts to little and wants the public to be impressed with a sense of his importance and the immensity of the business he is doing. And what is the result? Many possible customers are deterred from becoming such because they can not afford a luxury so costly as flowers are supposed to be after reading such items. What is the best policy for the florist to pursue when a reporter calls? If it is along about the Holidays keep quiet about the "Jack" roses even if you do have a dozen or so that you hold at a high price, and tell him of the other flowers of which you have a good stock to sell at fair prices. And if at a season when flowers are plentiful, give him a bunch and tell him that handsome roses can now be had at from \$1 to \$3 a dozen. Tell him the facts as they exist, nothing which he can work into a sensational note on "Extravagant prices for flowers." And never be so unwise as to tell a reporter the price paid for designs or decorations. While there are some who may be pleased to have such items about themselves in the papers (especially if exaggerated), your best customers will consider your giving such information to the public as a breach of confidence and a piece of impertinence; and the loss of a good customer may be the result of your indiscretion.

EARLY FIRING.—The number of cut flower growers who fail to appreciate the importance of early firing is remarkably large. The cold nights we are now having are undoubtedly doing more damage to stock in houses which are not yet heated at such times than any other form of neglect. The saving of a little coal and labor by neglecting to fire on chilly nights at this time is the most penny wise and pound foolish move that a cut flower grower can make. The set-back stock receives from being chilled in this way cuts a big slice out of your crop of early bloom and it may take till spring for your plants to fully recover their vigor. For every dollar you save in fuel and labor now you will lose five or more in a shortened crop if the plants are chilled at this

time. Do as Mr. May advises, fire a little at night even if you have to leave the ventilators open a trifle. Don't over do it, but take every precaution against allowing your plants to be chilled now.

THE EXHIBITIONS.—At the coming shows do not fail to arrange with some competent and impartial person to devote his whole time to giving proper information to press representatives. After every exhibition there is more or less complaint regarding the press reports, and the errors and omissions complained of may nearly all be avoided if some competent person could always be found to give correct information. Remember that reporters for the daily press are nearly all quite unfamiliar with the plants and flowers exhibited and it is not surprising that their reports should be ridiculously incorrect when they are obliged to rely almost entirely on themselves. The active managers of exhibitions are usually too busy at the time to properly attend to the matter, hence our suggestion that some one be selected to devote his whole time to it; and all press representatives should be referred to him.

CATALOGUE ILLUSTRATIONS.—We respectfully submit to the Executive Committee the accompanying as an appropriate mark to be engraved on "cuts" which have been certified to be true to nature by a committee of the Society of American Florists. It could be made larger or smaller to suit the owner of the engraving, or to correspond with the size of the illustration. The year should be that in which the certificate is given and is we think essential. It would be well to have the name of the plant engraved on the block to provide against any possibility of error in the title. The mark should of course be copyrighted by the society that its improper use may be guarded against.

"CRAPE CHASERS" is a name which has been appropriately given to that class of men in the trade who have so lost all sense of decency as to force themselves and their fearfully and wonderfully constructed "original designs" upon the attention of bereaved people. These men watch the papers for death notices and then indulge in a race to see which shall first invade the privacy of the house of mourning with his album of photographs of "funeral designs." They are fortunately few in number and would be beneath contempt but for the fact that they bring discredit upon the whole trade through the publicity given their actions by the daily press.

WE ARE now in the midst of the annual hustle to get things under cover. The man with the half glazed house who is dawdling along a few weeks ago is now working like a beaver and hurrying things into the houses in most any shape. In no other business is it more important to do things at the right time. And in no other is it more common to allow work which could have been got out of the way before, to accumulate until the last minute and then be obliged to crowd work so that it is of necessity imperfectly and improperly done.

A NATIONAL PRIZE.—In the premium list of the Society of Indiana Florists for its coming chrysanthemum show there is offered by Mrs. Benj. Harrison a special premium of a silver cup for the best new seedling of American origin which is listed as "The National Prize." It would

seem eminently proper that now we have a National Chrysanthemum Society this "National Prize" should be awarded by it.

SEEDLING DAHLIAS.—Some very excellent blooms of seedling dahlias have been received from D. S. Heffron, Washington Heights, Ill. None were named. One handsome large flower of a rich crimson was most excellent and all were good. Some seedling cannas had dark red foliage of a deeper hue than any before noted.

PRESIDENT JORDAN urges the great importance of prompt remittance by every member of the S. A. F. of his yearly dues (\$3) to Secretary Stewart. The society can not continue its necessary and useful work unless the full quota pay their annual membership fee.

MEMBERS OF THE Florists' Hall Association who desire to increase their insurance under the amended by-laws, should address the secretary of the association and he will furnish the necessary blanks.

A SAMPLE of the fruit of Diospyros Kaki has been received from R. D. Hoyt, Bay View, Fla. He considers it the best seedless variety of the "Date Plum." We shall not attempt to describe the flavor.

Catalogues Received.

Jos. Breck & Sons, Boston, Mass., Dutch bulbs; Thos. Jackson, Portland, Me., nursery stock; Parker & Wood, Boston, Mass., bulbs and seeds; E. H. Krelage & Son, Haarlem, Holland, bulbs and plants; John Gardiner & Co., Philadelphia, Pa., bulbs; L. Green & Son, Perry, O., wholesale nursery stock; Lake Shore Nurseries, Erie, Pa., wholesale nursery stock; D. Lee, Madison, O., wholesale nursery stock; H. Cannel & Sons, Swanley, Kent, England, plants and bulbs; A. M. & J. B. Murdoch, Pittsburg, Pa., trees, plants and bulbs; John R. & A. Murdoch, Pittsburg, Pa., trees plants and bulbs; Henry A. Dreer, Philadelphia, Pa., plants and bulbs.

Coming Exhibitions.

Oct. 29-Nov. 8, Chicago.—Chrysanthemum Show Chicago Florist Club.
November 5-9, Indianapolis.—Chrysanthemum Show Society of Indiana Florists.
November 11-15, Detroit.—Chrysanthemum Show Detroit Florists.
November 12-16, Philadelphia.—Chrysanthemum Show Pennsylvania Hort. Society.
November 12-14, Boston.—Chrysanthemum Show Mass. Hort. Society.
November 12-14, Orange, N.J.—Chrysanthemum Show New Jersey Floricultural Society.
November 12-16, Cincinnati.—Chrysanthemum Show Cincinnati Florist Club.
November 13-14, Worcester, Mass.—Chrysanthemum Show Worcester County Hort. Society.
November 14-16, Springfield, Mass.—Chrysanthemum Show Hampden County Hort. Society.

LOUISVILLE, KY.—Francis Morat, Sons & Co., have just completed five 100 foot houses. Jacob Schulz has rebuilt two and added three new 70 foot houses. Mr. S. buds the new roses on American Beauty stocks and secures new wood rapidly. Nanz & Neuner's Pink Perle will not be sent out until 1891.

INDIANAPOLIS.—Trade has been unusually dull this summer, more people away from the city than ever. The following new firms have started into business: Chas. Wheatcraft, on 22nd street with a house 22x100; Bernie Fohl on 22nd street, with a house 26x104; Robert Miethke, in Mapleton suburb, with a house 22x100. Jens Larson has added a house 12x104 for carnations; Anthony Wiegand a cold house 20x150; Bertermann Bros. have given their place a general overhauling. A lively interest is being taken in the coming chrysanthemum show. Cut worms have done great damage in this neighborhood.

BUFFALO.—Henry Miller Long, brother of Daniel B. and Elias A. Long, of this city, died at his home in Williamsville, September 10.

BOSTON.—Up to September 23 the lowest temperature recorded this fall is 42°.

C. STRAUSS & CO.,

Telephone 977. WASHINGTON, D. C.

Roses planted for Winter 1889-90.

20,000 WOOTTON,	2,000 MME. WATTEVILLE
15,000 PERLES,	2,000 MME. CUSIN,
10,000 LA FRANCE,	1,000 LUCIOLE,
3,000 AM. BEAUTY,	6,000 BRIDES,
3,500 PURITAN,	2,000 MERMETS,
2,000 MME. HOSTE,	2,500 GONTIERS.

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20 West 24th Street,

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LILY OF THE VALLEY

And the Choicest ROSES for the fall and winter season.

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Orders to be shipped will receive prompt attention.

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Single Primrose plants for sale, etc.
THE WISCONSIN FLOWER EXCHANGE,
133 Mason Street, MILWAUKEE, WIS.

Wholesale Markets.

Cut Flowers.

	BOSTON, Sept. 25.
Roses, Texas.....	\$1.00 @ \$2.00
" Fancy.....	5.00 @ 5.00
Carnations, short.....	1.00
Carnations, long.....	1.50 @ 2.00
Asters.....	1.50 @ 2.00
Valley.....	6.00
Tuberose.....	1.00
Candytuft.....	.50
Mignonette.....	.50
Smilax.....	12.50
Adiantum.....	1.00
Hardy Fern.....	.15
	NEW YORK, Sept. 25.
Roses, Bon Silene.....	\$1.00
" Gontiers.....	2.00
" Perles, Niphotos, Souvs.....	3.00
" Mermets, Brides.....	4.00
" Cusins.....	3.00 @ 4.00
" La France.....	4.00 @ 6.00
" Rennets.....	10.00 @ 15.00
Smilax.....	15.00 @ 20.00
Carnations, fancy, long.....	1.00
Lily of the valley.....	8.00
Adiantum.....	1.00

	PHILADELPHIA, Sept. 25.
Roses, Perles, Niphotos.....	\$2.00
" La France.....	2.00 @ 4.00
" Am. Beauties.....	1.00
" Bennetts, M. Guillots.....	2.00
" Mermets, Brides.....	2.00 @ 3.00
" Gontiers.....	1.50
Carnations, long.....	1.00
Carnations, short.....	.75
Tuberose.....	2.50 @ 4.00
Asters.....	1.00
Lily of the valley.....	5.00 @ 10.00
Stephanotis.....	1.00
Smilax.....	15.00
Adiantum.....	1.00

	CHICAGO, Sept. 25.
Roses, Perles, Niphotos.....	\$3.00 @ \$4.00
" Mermets, La France.....	4.00 @ 5.00
" Brides.....	5.00 @ 6.00
" Bennetts, Duker.....	4.00 @ 5.00
" Bon Silenes.....	2.00
" Am. Beauties.....	10.00 @ 15.00
Carnations, short.....	1.00
Carnations, long.....	1.25
Carnations, fancy.....	2.00 @ 3.00
Callas.....	15.00
Tuberose.....	1.00 @ 1.50
Smilax.....	5.00 @ 15.00
Bourvardia, heliotrope.....	1.00
Adiantum.....	1.00 @ 1.25

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Mention American Florist.

LaRoche & Stahl,

Florists & Commission Merchants

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1237 Chestnut Street, - PHILADELPHIA.
Consignments Solicited. Special attention paid to shipping.

Mention AMERICAN FLORIST.

Mention American Florist.

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WHOLESALE FLORIST

38 So. 16th Street, Philadelphia, Pa.

JOHN M. HUDSON,

WHOLESALE

Commission Dealer in Cut Flowers,

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Quick sales and prompt returns guaranteed. Consignments solicited.

HAMMOND & HUNTER,

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AT ALL SEASONS.

F. E. FASSETT & BRO., Ashtabula, O.

VAUGHAN'S CUT FLOWER DEPT.

88 State St., - CHICAGO.

Receives Fresh Flowers morning and evening DAILY.

Send your orders to the above address, where they will be attended to properly.

REMEMBER.—When any one in Chicago has Flowers to sell, VAUGHAN has also.

WRITE FOR QUOTATIONS.

KENNICOTT BROS., WHOLESALE FLORISTS,

27 Washington Street, CHICAGO.

We always have choice, Fresh Cut Flowers in season. The best packers in the trade. Orders promptly shipped. Store open until 9 P. M. Sundays until 2 P. M.

WIRE WORK A SPECIALTY.

Extra designs made to order. Write for price list.

Consignments Solicited. Telephone 495.

CHAS. H. FISK, Wholesale Florist

AND DEALER IN

FLORISTS' SUPPLIES,

116 Dearborn Street,

CHICAGO,

Store Open Day and Night.

I keep a full stock of

WIRE DESIGNS

of superior workmanship and at lowest prices. Extra pieces of any description made to order on short-est notice. Send for Catalogue.

GEO. MULLEN, WHOLESALE FLORIST.

Florists' Supplies Always in Stock.

17 CHAPMAN PLACE,

(Off School St., near Parker House),

BOSTON, MASS.

Orders by Mail, Telegraph, Telephone or Express promptly filled.

Mention American Florist.

N. F. MCCARTHY & CO.,

WHOLESALE FLORISTS

and Jobbers in Florists' Supplies,

1 MUSIC HALL PLACE, BOSTON, MASS.

Also entrance from Hamilton Place through Music Hall.

We keep a large supply of Fancies and Carnations always on hand. Return telegram sent immediately when unable to fill orders.

—Auction Sales of Plants Spring and Fall.—

WELCH BROS., WHOLESALE FLORISTS.

165 Tremont Street, BOSTON, MASS.

We make a specialty of shipping choice Roses and other Flowers, carefully packed, to all points in Western and Middle States.

Return Telegram is sent immediately when it is impossible to fill your order.

CUT FLOWERS

The choicest Cut Flowers at lowest market rates shipped C. O. D. Telephone connection. Use A. F. Code when ordering by telegraph. For prices, etc., Address,

J. L. DILLON, BLOOMSBURG, PA.

The Seed Trade.

SEED TRADE ASSOCIATION.

H. W. JOHNSON, Philadelphia, president; ALBERT M. MCCULLOUGH, Cincinnati, secretary and treasurer. The eighth annual meeting at Saratoga Springs, N. Y., June, 1890.

MR. CHAS. H. THOMPSON, seedsman, of Boston, was married September 18.

MR. C. CROPP, JR., with J. C. Vaughan, sails from Hamburg October 6 for home.

GENERAL REPORTS indicate that Dutch bulbs are in good demand and of good quality this season.

AN EXPERIMENT with onion sets frozen in cold storage is awaited with interest by the seed trade in the west.

A NUMBER of lots of English grown bulbs, as well as some French shipments, have been seriously delayed by the dock laborers' strike in London.

THE POTATO CROP in Northern New York is reported to be the worst failure known for many years, all varieties having blighted when the tubers were about half grown, making a very light yield and of inferior quality.

CONNECTICUT SEED GROWERS complain that low tariff and foreign competition is a source of much greater danger to them than that of the new seed districts in California or Nebraska, and intimate that the present low tariff will prove an exterminator to the seed growers in America, ordinary farming having paid better the past two years than seed growing.

GERMANY—BENARY'S HARVEST REPORT.—In spring it became apparent that the raw damp weather of last autumn, but more especially the sharp frosts in the early part of October, had considerably injured the whole of the Brassica tribe—cabbages, savoys, borecoles, kohlrabis and Swede turnips—and in consequence the crops of all will be very limited. The unfavorable weather just mentioned also had a serious effect on carrots. Parsleys and parsnips having also suffered during the winter, less was planted out than usual, but from the breadths growing fair crops may be expected. The almost abnormal heat of June and July was very beneficial to beans and the yield will be a good one, that of peas, spinach, endives and radishes of all kinds will be middling. Of lettuces and cucumbers we expect good crops and of salad beets and mangold wurzels the yield will be satisfactory. Onions looked very well in spring, but the subsequent unusually hot weather proved detrimental to their development and the result is only a middling yield of all varieties.

September 8, 1889.

Chicago.

Holland & Barrett have opened a floral store at 263 N. Clark street.

Around the city roses and violets are looking well, carnations fair.

W. D. Allen has bought out Jos. Krick at 65 State street and has removed to that location.

At Lincoln Park the gardeners are busy taking cuttings of all soft stock from bedded plants. These will furnish plants from which the main supply will be propagated later on.

On September 21 at South Park the mercury fell to 30°, but for a short time only. Coleus and other tender plants were damaged, especially those in low places where frost settled most.

Albert Fuchs has built eleven new houses corner of Evanston avenue and Sheridan Drive in Lake View. They are each 100 feet in length and from 20 to 27½ feet in width.

M. F. Gallagher the Wabash avenue florist is building three greenhouses near his residence at South Park station. They are each 75 feet long with widths of 16, 14 and 11 respectively. They will be used mainly for decorative plants.

The first frost occurred here last year on October 3, when the thermometer registered 33°, and the first hard freeze on October 20 when the thermometer dropped to 28°. September 20th the thermometer registered 36°, 13° lower than at any time by same date last year.

The water lily ponds at Lincoln Park have been a great attraction the past summer, so much so that it has been decided to considerably enlarge them for next season and to increase the number of plants. The two plants of Victoria regia have bloomed plentifully during the season, and though not covered in any way were apparently uninjured by the recent unusually cold nights, the thermometer dropping to 40° the night of September 18. The water in one of the ponds (that containing the victorias) is heated by steam pipes while the other has no artificial heat and the difference in growth of two plants of Nymphaea Devonensis—one in the heated and the other in the unheated pond—is very noticeable. That in the cold pond has made much less growth and the flowers are smaller in size and not so well colored as that in the heated pond, though the former was the strongest plant when placed in the pond. A plant of Nymphaea Zanzibarensis azurea in the cold pond has made a magnificent show all summer, bearing with remarkable freedom its immense blue blossoms. An excellent feature of the display has been that the name of each variety was indicated by a painted label which could be easily read by all visitors.

GRAND HAVEN, MICH.—Heavy frost September 22 killed all soft stuff outside.

ERIE, PA.—A chrysanthemum show will be held here in November.

TREE ROSES.

4 to 5 Feet High.

Pot grown plants, and also from open ground. Best varieties and best plants in the country. Now ready for Fall trade.

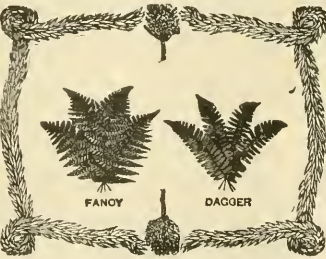
GABRIEL MARC & CO.

WOODSIDE, L. I., N. Y.

IMPORTED H. P. ROSES.

Worked long on the Manetti Stock, best kinds for forcing. Orders received now for delivery in November. Address

WILLIAM H. SPOONER, Jamaica Plain, Mass.



Mention America Florist.

ROSES.

In order to make room for young stock we offer the following low inducements: Red Swan and Souv. d'Ami, 3-inch pots, strong, \$7.00 per 100. Mermel, Cook, Pampontier, Bride Nipheto, Perle, La France and M. Niel, from 3-in. pots, strong plants \$8.00 per 100. TEAS and HYBIDS, from open ground, strong plants \$6.00, \$8.00 and \$10.00 per 100. SMILAX, Strong plants, \$2.50 per 100; \$3.00 per thousand.

CARNATIONS.

Peerless, Edwardsii, Florence, Alegretre, The Century, Philadelphia, Hinz's White, Sunrise, Andalusia, Fred. Johnson, J. J. Hay, pots, strong plants Mrs. Garfield, strong, healthy plants: 1st size, \$5.00 per 100, \$6.00 per 100. 2nd size, \$6.00 per 100, \$8.00 per 100.

VIOLETS, Marie Louise and Swanley White, \$8.00 per 100, \$50.00 per 1000.

VERBENAS.

Perfectly healthy outdoor rooted cuttings. Mammoth Set of 1889, \$1.25 per 100, \$ 0.00 per 1000. General collection, variety unsurpassed, \$1.00 per 100, \$1.00 per 1000.

WOOD BROTHERS,

(Successors to L. C. WOOD & BROS., FISHKILL, N. Y.)

SURPLUS ROSES.

We offer to the TRADE the following varieties from 3-inch pots, good strong, healthy plants:

350 Bride, 400 Catherine Mermel, 250 Perle des Jardins, 300 Bon Silene.

Write for prices.

BROWN & CANFIELD,

Rose Growers, SPRINGFIELD, ILL.

2500 ROSES.

Fine, healthy plants grown in 4-inch pots, at \$8.00 per 100, consisting of

PERLES, MERMEIS, BRIDES, NIPHETOS, AMERICA, ANDALUSIA, FRED. JOHNSON, TEVILE, BON SILENE & SAFRANO, or will exchange for White Carnation plants.

JAMES HORAN,

BRIDGEPORT, CONN.

AUCTION SALES

Will be held

SEPT. 20—Hothouse Plants, Ferns, Palms

SEPT. 23—Combination Plant sale.

SEPT. 25—Established Orchids.

SEPT. 27—Columbian Hyacinths, Lilium Candidum, and general Bulbs.

By AUGUST ROLKER, Auctioneer, in firm AUGUST ROLKER & SONS, 44 Dey St., N. Y.

SPECIAL OFFER.

	Per 100	Per 1000
Smilax, strong 2½-inch pots.....	\$2.50	\$30.00
Double White Daisies (Bellis perennis), strong 1 year old clumps.....	2.00	15.00
Primula (Obconica, 3-inch pots).....	8.00	
Hardy Pink Snow, strong 1 year old clumps.....	8.00	
Nyctaginia.....	7.50	5.00

Free on board at Philadelphia.

WM. J. EISELE, Torrissdale, Philadelphia, Pa.

PRIMULAS.

Strong plants of P. Obconica for winter flowering, in light cases, by express, \$5.00 per 100. Fresh Crop (1889) Seed of "Obconica," \$1.00 per 1000 seeds.

ADIANTUMS.

	Per 100
A. CUNEATUM, from 2½-inch pots.....	\$ 5.00
A. MORITZIANUM, from 3-inch pots.....	6.00

fine bushy plants, grand for filling terreries, &c.

FISHER BROS. & CO., Montvale, Mass.

1,000,000 EVERGREEN CUT FERNS

ESPECIALLY FOR FLORISTS' USE.

\$1.50 per thousand Ferns. Discount on large orders. Special attention paid to supply to the wholesale trade. Write for prices.

BOUQUET GREEN. \$2.00 per bbl. (30 lbs.)

20,000 yds BOUQUET GREEN WREATHING, all wound with wire to first class manner. per yard

3-in. flat or one sided wreathing..... 4 cts.

3-in. round wreathing, with cord in center..... 6 cts.

3-in. round wreathing, with cord in center..... 8 cts.

3-in. round wreathing, with cord in center..... 10 cts.

700 BBS. DRY SPAGNUM MOSS,

\$1.00 per bbl or 6 bbls. for \$5.00. Write for terms on large lots.

L. B. BRAGUE, Hinsdale, Mass.

SMILAX.

Good strong plants at \$5.00 per hundred.

ROSES.

A fine assortment of Teas—will only name a few of the leading varieties:

Adam, Bride, C. La Barthe, Etoile de Lyon, I. Sprunt, Safrano, Marie Lambert, M. Margottin, M. Van Houtte, P. de Hohenzollern, White Bon Silene, Hermosa, Douglas, Malmaison.

NOISSETTES.

M. Niel, Chromatella, Gloire de Dijon, and R. M. Henrietta.

Price, \$4.00 per 100; \$30.00 per 1000.

Have also a good stock of young Hybrids of the following varieties:

Gen. Washington, H. Schultze, Mme. A. Duron, Mme. Masson, Paul Neyron, Coquette des Alps, Dr. Hogg, Giant of Battles, Crown Prince, and others, at \$6.00 per 100; \$45.00 per 1000.

Gen. Jacqueminot, \$5.00 per 100; 4 inch pots, \$12.00 per 100.

Strong Baltimore Belle, in 3-inch pots at \$5.00 per 100.

GEO. W. MILLER,

1748 N. Halsted St., CHICAGO.

MILDEW ON ROSES.

SING SING, N. Y., July 21, '89.

MR. BENJ. HAMMOND, Fishkill on Hudson.
My Dear Sir—During the past season, I gave you "Grape Dust" a thorough trial in my rose houses. As a preventive of Mildew on plants, I regard it as superior to sulphur. It is more easily applied, adheres to the foliage better and seems quicker in its effects. If mildew is caused by weakness or by an increase in the use of the plant or as is often the case in the winter months, by keeping the soil too wet, it is unreasonable to expect any permanent benefit from the application of mildew mixtures; but when caused by a draught of cold air, or by a sudden change in temperature or other unavoidable circumstances, it can be eradicated if taken in hand at once. For this purpose I know of no more efficient remedy than Grape Dust. I should think you would find a ready sale for it when its merits become generally known.

Very truly yours, JOHN HOAG.

"GRAPE DUST"

Is Sold by the SEEDSMEN of AMERICA.

ROSES FROM OPEN GROUND.

SAFRANO, ETOILE DE LYON, ADAM Tea, HERMOSA, CORNELIA COOK, Duchess of EDINBURGH, MALMAISON, MME. LAMARDE, DUCHESS DE BRABANT, MARIE GUILLOT, OPHELIA, MARIE VAN HOUTTE, LA FRANCE, ROSANOUE, SOMBREIL, LA FALCOTE, BALTIMORE BELLE, QUEEN OF PRAIRIE, MAGNA CHARTA, MME. CHARLES WOOD, LOUIS VAN HOUTTE, MME. WILCH, MME. F. KRUGER, MME. DESBOISE.

And others. Price, \$10 per 100, \$80 per 1000, my selection from above named varieties 500 at 1000 rates.

DEUTZIA, GRACILIS, 3 years old, very bushy, \$5 per 100.

TATERN, E. MONTANA, 6 and 7-inch pots, \$4.50 per dozen.

Address **A. LAUER,**

1213 E. Broadway, LOUISVILLE, KY.

ROSES.

35,000 of the leading Forcing and Bedding varieties: TEAS, HYBRID TEAS, and HYBRID PEIGTLIA. Teas, \$100 per 1000; Hybrids, \$40.00 per 1000. My selection of varieties. Also the leading Prize winning varieties of CHIRYANTHEMUMS, CARNATIONS, and general Greenhouse stock. Trade List mailed on application.

JACOB SCHULZ,

LOUISVILLE, KY.

G. BENARD,

ORLEANS, FRANCE.

ROSES ON THEIR OWN ROOTS A SPECIALTY.**NURSERY STOCK OF ALL DESCRIPTIONS** For particulars apply to**E. BENARD, JR.,**

P. O. Box 1400, SAN DIEGO, CAL.

ANNUAL REPORT OF THE FLORISTS' HAIL ASSOCIATION.**SECRETARY'S REPORT.**

After over two years of practical working, we are ready to assert, that to-day no more perfect system of insurance exists on the American Continent than that adopted by the Florists' Hail Association of America. One hundred and forty-two persons having banded themselves together for the purpose of securing themselves against loss by hail, find that after paying all losses and expenses except salary of the secretary for the past year and a small bill for printing) from June 1st, 1887, to August 12th, 1889, they have a fund of \$591.59 in hand. In addition to this membership fee has accumulated a reserve fund of \$743.07, after deducting \$76.25 which has been refunded to those who subscribed towards the guarantee fund and afterwards became members of the Association.

This result has been secured to members of the Florists' Hail Association by the payment of 6 cents per hundred square feet of double thick glass, and 8 cents per hundred square feet of single thick glass. The membership fee having been placed at interest, has this year brought to the assessment fund of the Association the sum of \$35, as will be seen by the Treasurer's report.

The total amount of glass now insured is 1,327,240 square feet, of which 734,386 square feet is double thick and 592,854 square feet is single thick. The total assessment is collected upon the same has been \$14 37, and the total membership fee \$89.32. No assessment other than that paid by members upon joining has been levied, and it still remains a question of the future how often it may be necessary to levy the same. The glass insured is located in twenty-two States and Winnipeg, Manitoba. The States of Georgia, Alabama and Dakota having been added to those reported last year.

The losses paid during the year were to W. T. Jackson of Larned, Kansas, for 29 square feet of double thick glass and 94 square feet of single thick glass, amounting to \$5 73; to S. G. Rife of Independence, Missouri, who lost 39 square feet of single thick glass, the sum of \$19.55; to Joseph W. Losey, president of Oak Grove Cemetery and greenhouses, \$4.73 for 174 square feet of single thick glass. To Robert S. Brown of Kansas City, Mo., \$49.95 for 35 square feet of double thick glass and 950 square feet of single thick glass. To Mrs. J. E. Patton of Great Bend, Kansas, \$15 for 30 square feet of single thick glass, and to Thomas H. Price of Lake Geneva, Wisconsin, the sum of \$65.13 for 859 square feet of double thick glass. Making a total \$160.00 paid for glass broken by hail during the past year. An effort on the part of your Secretary to locate the hail belt has met with the following result: So far as he has been able to learn hail has fallen during the past year in Elkhart, N. Y., Short Hills, N. Y., Spring Valley, N. Y., Chicago, Ill., St. Ignace, Mich., Peoria, Ill., New Hanover Co., North Carolina, Liberty, Mo., Larned, Kan., Monclair, N. J., Atlanta, Ga., Bell Co., Texas, Lake Forest, Ill., Danville, Virginia, La Crosse, Wisconsin, Independence, Mo., Morrison, Ill., Kansas City, Mo., City of Mexico, Mexico, Marion, Iowa, Abilene, Kan., Bonner Springs, Kan., Oconomowoc, Wis., Cedar Rapids, Iowa, Oswego,

N. Y., St. Albans, Vt., Martinsburgh, West Virginia, Great Bend, Kan., Montreal, Canada, Clinton, Iowa, Upper Sandusky, Ohio, Pembina, Dak., Lynn, Mass., Prairie du Chien, Wis., Lake Geneva, Wis. and Denver, Colo. From Montreal to Mexico, from Denver to St. Albans the florists' fickle structure is as liable to be crushed by hail as to be burned by fire.

In conclusion, the correspondence of the Secretary shows that the members of the Association are satisfied with the results attained. And such being the case, it is safe to announce that the Florists' Hail Association is no longer an experiment but an organization to which every florist who is careful to consult his best interests should belong, and with increased membership and strength, there is a field of future usefulness for this Association yet undeveloped and undreamed of. With the active co-operation of every member the officers and directors can accomplish much during the ensuing year.

J. C. ESLER, Secretary.

TREASURER'S REPORT.

RICHMOND, IND., Aug. 16, 1889.

Aug. 16, 1888, total amount on hand . . . \$890.47
 Aug. 16, 1888 to Aug. 16, 1889, advance-
 ced assessments . . . \$353.59
 Aug. 16, 1888 to Aug. 16, 1889 mem-
 bership fees . . . 339.89
 Less guarantee fund applied . . . \$83.48
 July 16, 1889, interest on \$550 for 1 year at
 6 per cent. 33.00
 \$1,604.30

Bills allowed and paid by check:

Sept. 6, '88, to Sec'y Esler for salary
 for year ending June 1st, 1888. . . \$100.00
 Sept. 6, '88, for Record Book, 1.00
 Oct. 3, '88, Am. Florist Co. for adv. . . 11.80
 Oct. 14, '88, Wilson, Humphrey & Co.
 printing letter heads . . . 8.00
 Mich. J. '89, Hackensack Republican
 printing constitution and by-laws 15.00
 April 26, '89, W. T. Jackson, Larned,
 Kan., loss by hail . . . 6.73
 May 27, '89, Wilson, Humphrey &
 Co. printing applications, 8c . . 3.50
 June 4, '89, N. S. Griffith, Independ-
 ence, Mo., loss by hail . . . 19.55
 June 5, J. W. Losey, La Crosse, Wis.,
 loss by hail . . . 8.73
 June 10, '89, R. S. Brown, Kansas
 City, Mo., loss by hail . . . 49.95
 June 25, '89, Mrs. J. E. Patton, Great
 Bend, Kan., loss by hail . . . 15.00
 Aug. 6, '88, Thos. H. Price, Lake
 Geneva, Wis., loss by hail . . . 60.13
 Expenses collecting sight draft 25

\$299.64

Balance on hand \$1,304.66

E. G. HILL, Treasurer.

PROFITABLE ROSES FOR FLORISTS.

We have an exceptionally fine lot of Roses from the open ground that can be potted into 6, 7 and 8 inch pots. Florists will find them more profitable to grow than the ordinary field grown 4 and 5-inch pot roses. We only offer a few varieties, but all are the best market sorts.

Etoile de Lyon, La France, Hermosa, The Gem, Malmaison, Meteor,

The best Dark Red

Mme. Etienne or Dwarf Mermet; the BEST PINK for market.

Mme. Agathe Nabonnand, Rosy flesh; immense buds.

ORDER NOW. PRICE, \$12 per 100.

TERMS, Cash with the order.

ROBT. SCOTT & SON,

19th and Catharine Streets, PHILADELPHIA, PA.

E. Verdier fils aine, 37 Rue Clisson, PARIS, FRANCE,

Reminds his American patrons that he makes it his business to collect, every autumn, all the desirable continental NEW ROSES and to furnish them, in strong plants obtained from their producers. Some of these producers being slow in announcing the names and descriptions of their NOVELTIES, Mr. Verdier can but be late also, in reporting them in his descriptive price list—which shall be mailed, as soon as issued, to all applicants, by his Agent:

C. RAOUX, 296 Pearl Street, NEW YORK.

Philadelphia.

Up to September 24 the lowest the temperature has fallen in this immediate vicinity is 37°. Nothing out doors has suffered except coleus from the effects of the cold.

The excessive rains the past summer and fall have however wrought sad havoc among carnations and roses, one firm alone having lost 8,000 carnation plants outright, at least they are so badly crippled that they are not worth housing for the winter. Many florists who do a large trade in hardy roots will have very puny plants for next spring's sales.

Bouvardias have not suffered to any great extent hereabouts, but chrysanthemums that have been outside all summer present a sorry appearance in some quarters. Chrysanthemums deserve better treatment than some growers persist in giving them.

Roses in greenhouses for next winter's blooming are variable, some look better while others look worse than they did last year.

E. L.

OMAHA, NEB.—The Saline County Nursery Co., of Western Saline county, Neb., has been incorporated with a capital stock of \$15,000, the indebtedness being limited to two-thirds of the capital stock. Incorporators: D. J. Maynard, F. D. Maynard, A. A. Allan, F. H. Porter and N. H. Cowgill.

THE NEXT CONVENTION of the Association of American Cemetery Superintendents will be held at Boston on the same dates as that of the Society of American Florists.

75,000 VIOLET PLANTS FOR SALE.

All good, strong, healthy plants, 10 percent better than last year. Per 100 Per 1000
Marie Louise, double blue..... \$2.50 \$22.00
Ozar, single blue..... 2.50 22.00
Swanley White, double white..... 2.00 18.00
Runners of Swanley White, well rooted, 1.00 8.00
Also 300 Magnolia grandiflora in 2 and 2 1/2 in. pots..... 5.00 45.00
Or will sell 500 of any of the above at 100 rates. Cash against money orders from unknown parties.
Address M. TRITSCHLER & SONS,
HYDE'S FERRY GARDENS, NASHVILLE, TENN.

A. T. MERRICK,
HORTICULTURAL ENGRAVER.

Room 711, Chicago Opera House Block,
CHICAGO.



TRY DREYER'S
GARDEN SEEDS
Plants, Bulbs, and
Requisites. They are the
best at the lowest prices.
TRADE LIST mailed
quarterly mailed free.
HENRY A. DREYER,
Philadelphia

M. M. BAYERSDORFER & CO.

56 N. 4th St., Philadelphia, Pa.,

Manufacturers and Importers of

BASKETS AND FLORISTS' SUPPLIES.

FULL LINE OF METAL WREATHS.

RUDOLPH HANTZSCH,

Enterprise Wheat Sheaf Mfg Co.,

IMPORTER OF

FANCY BASKETS

AND FLORISTS' SUPPLIES.

700 Lehigh Avenue, PHILADELPHIA, PA.



Electro of this Cut 75c. A larger one \$1.50.

NEW SWEET SCENTED
CHRYSANTHEMUM

"Nymphaea." A decided novelty. Form and fragrance of French Lily. Fine for florists. As the cream of the older varieties. Send stamp for plate of "Nymphaea" and Catalogue.

H. W. HALE'S, Ridgewood, N. J.

ROSES, Gen. Jacq., field grown, 1 year..... Per 100
Gen. Jacq., 3-inch pot plants..... 5.00
DAY LILY, White Finkia alba, \$10.82, extra 150
AMPELOPSIS VITICOLA, field grown, 1 year..... 5.00
Good vines..... per 100 \$16.00 2.00
Fine plants from 3 and 4-inch pots..... 3.00 4.00
HYDRANGEA Thos. Hoge from 2 1/2 in. pots..... 2.50
GERANIUMS, Standard named sorts, 2 1/2 and 3-inch pots..... per 100 \$22.00 2.50
Roses, Salter's and Rose Semino..... 1.50
PANSIES, fine strain, strong, twice transplanted..... per 100 \$9.00 1.50
August sowings, once transplanted..... 1.50
DAISIES ENGLISH, Double White, Long-tellow, pink..... per 100 \$10.00 1.50
SWEET ALYSSUM, Double White, strong, 2 1/2-inch pots..... 2.50
CHRYSANTHEMUMS, good blooming plants, 4-inch pots..... 6.00
WHITE MOON FLOWER..... 2.00
E. FRYER, Delaware, O.

GEO. W. CALDWELL,
FLORISTS' - SYLVAN - SUPPLIES.

Evergreen, Ala.

CUT FERNS IN VARIETY.

Evergreen and Deciduous; also Mosses, Holly, Mistletoe, Wild Smilax and all Evergreens. Telephone orders receive prompt attention. Correspondence free.

When you have a large Decoration consult me.

NOTICE!
GREAT REDUCTION ON
GOODYEAR'S

Florists' Rubber Hose.

PRICE LIST OF

Genuine Spring Steel galvanized wire bound, 3-ply and 4-ply Hose.

EVERY FOOT GUARANTEED.

3-PLY. 4-PLY.
No. 1 per foot..... No. 2 per foot..... No. 3 per foot.....
1/2-inch..... 1/2-inch..... 1/2-inch.....
3/4-inch..... 1/2-inch..... 1/2-inch.....
1-inch..... 1-inch..... 1-inch.....
Including Couplings and Washers.

Other sizes wire bound to order for use on steam pumps, etc.

FINE PARA RUBBER HOSE (BLACK OR WHITE.)

No. 2 and 3 Guaranteed Perfect.

3-PLY. 4-PLY.
No. 1 per foot..... No. 2 per foot..... per foot.....
1/2-inch..... 1/2-inch..... 1/2-inch.....
3/4-inch..... 1/2-inch..... 1/2-inch.....
1-inch..... 1-inch..... 1-inch.....
Also Hose Menders, Couplings, etc.

We also make and keep in stock Rubber Coats, Boots, Aprons, Horse Covers, and all kinds of

GOODYEAR'S RUBBER GOODS.
Every article GUARANTEED.

On \$25.00 or upward we will deliver Goods by freight, free of charge.

Give us a trial and we know you will be satisfied with our goods. References from 200 florists if you want any.

HOLT & CO.,

83 Broadway, Brooklyn, N. Y.

A. BLANC,

Horticultural Engraver,
PHILADELPHIA.

5000 ELECTROTYPE S for ILLUSTRATING
FLORISTS' SEEDSMEN & NURSERYMENS CATALOGUES CHEAP.
A FULL SET OF CATALOGUES ILLUSTRATING ALL CUTS, SENT ON RECEIPT OF 50 cts. WHICH DEDUCT FROM FIRST ORDER.

Electro of this Cut 75c. A larger one \$1.50.

AUGUST RÖLKER & SONS.

44 Dey St., NEW YORK,

Supply the Trade with

SEEDS, BULBS,

And all kinds of

FLORISTS' SUPPLIES.

Price List Free on application with business card.

SURPLUS STOCK OF
NARCISSUS.

HOME GROWN BULBS, FOR FORCING.

Home Hordfield..... Per 1000
Poet's Ornatus..... 11.50
Poet's (Pleasant Eye)..... 2.00
Obvaline..... 12.00
Trumpet Major Sporus..... 12.00
Double incomparable..... 6.00
Also pleno odorata..... 6.00
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Field grown Portia, Detray, Janette, Century, Edwards, King of Crimson, \$5 per 100; \$45 per 1000.
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White Roman Hyacinths, 11 to 13 cm	103 francs
" " " 11 to 15 cm	105 "
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PANSY PLANTS, 75 cts. per 100; \$5.00 per 1000**JOHN J CONNELLY,**
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FLORISTS' BULBS AND SEEDS, NOW READY.LILUM HARRISII, 5 to 7-inch. . . . \$7 00 per 100; \$65 00 per 1000
" " 7 to 9 inch. . . . 9 50 " 90 00 "**TUBEROSE EXCELSIOR PEARL, READY NOV. 1,**
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Very complete list of seasonable "Florist Seeds," PRIMULA, PANSY, DAISY, &c.

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Plants ready to ship at all times.

GLADIOLUS "SNOW WHITE"will be for sale by all dealers next January. To all wishing a description, or to cata-
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QUEENS, N. Y.****Dutch Bulbs in Endless Quantities**

HYACINTHS OF FINEST QUALITY.

TULIPS OF ALL LEADING VARIETIES.

**CROCUS, NARCISSUS, FREESIA,
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Send your address for my 1890

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FINE LARGE FREESIA BULBS,

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Immense stock of Azaleas and Camellias, very
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Price List on application.

SMILAX.Fine, stocky plants, 2½-in. pots. Price, \$2.25 per 100.
CLEMATIS DAVIDIANA, 6-in. pots, 30 cents each.

W. S. HMMAND & CO., Carthage, N. Y.

St. Paul.

The Society of Minnesota Florists held its annual meeting September 12 and elected officers for the ensuing year as follows: E. Nagle, Minneapolis, president; Aug. S. Swanson, St. Paul, vice-president; Ernest Venzke, St. Paul, treasurer; Gust. Malmquist, Minneapolis, secretary. A change in the constitution and by-laws was made providing for semi-annual meetings instead of monthly. It is the intention to form local clubs in the larger cities which shall meet monthly. Minneapolis made a good start some time ago and we are waiting for St. Paul to follow.

The state fair had no interest to the florists this year, the premiums being too insignificant with the exception of one offered by a local clothing firm—\$50 in gold for floral design, which was awarded to Aug. S. Swanson.

The Minneapolis Florist Club is endeavoring to get up a chrysanthemum show this fall. St. Paul florists will help. Next year St. Paul proposes to have a show of its own.

DICKSONIA ANTARCTICA.

From 3 to 11 feet high, \$3.00 per foot.

CYCAS REVOLUTA.

From 75 cents to \$3.00 each.

CALLA LILIES.

Large flowering bulbs, \$9.00 per 100; \$1.50 per doz.

CHINESE NARCISSUS BULBS.

(Chinese Sacred Lily). \$7.00 per 100; \$1.25 per doz.

LILUM AURATUM BULBS.

Flowering bulbs, 2½ inches in diameter, 75 cents per doz.; \$4.00 per 100.

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1st quality 24 to 30 inches, \$1.25 per doz.; \$8.50 per 100. Small Plumes, prices on application.

SMILAX SEED (NEW CROP).

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100 Calla Bulbs, blooming,	\$8.00
1000 " " small,	1.00
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Begonia Rex, fine plants,	10.00
Primroses, Rolker and Rupp seeds,	\$5.00 per hundred.

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Cypripedium, strong, 4-inch, 2 ft.	\$8.00
Fuchsias, stock, 4-inch.	6.00
Rooted Cuttings.	1.00
Torenia Asiatika, 3-inch.	5.00
Streptolomena Jamesonii.	4.00
Hydrangeas, 3-inch.	10.00
" 4-inch.	25.00
Tradesantia multicolor.	4.01
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AT LOW PRICES.

CARNATIONS, strong, bushy plants well pinched in, from open ground. Fortia, E. G. Hill, Hinz's White, J. J. Harrison, Crissum King, Columbia and other leading sorts, \$8.00 per 100.
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PALMS, Lemna Borbonica, 2½-inch pots, strong plants, \$8.00 per 100; 3-in. \$10.00; 4-in. \$15.00 per 100.
Palm Chamae, 2½-inch pots, \$8.00 per 100; 3-in. \$10.00; 4-inch, \$15.00 per doz.
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2500 Smilax, nice, 2½-inch.	2.50
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400 Asparagus tenuissimus, 2½-inch.	3.50
300 Ampelopsis Veitchii, 2½-inch.	3.00
400 " Meruets, 3-inch.	4.10
400 " Lady Washington, 3-inch.	5.00
400 " Duchesse de Brabant, 3-inch.	5.00
200 " Mme Joseph Schwartz, 3-inch.	5.00
100 Carnations, FORTIA, fine clumps.	7.00
2700 " Century, Garfield, Searles, Chester Fride, Hinz's White, etc., clumps	8.00
2000 Geraniums, fine variety, 3-inch.	5.50

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Geraniums, double and single.	\$3 to 4.00
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FRESH SEED, \$2.00 per 100.

ROSE DUCHESS OF ALBANY, 2-inch, \$15.00.

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Double White Primulas

\$10.00, \$12.00 and \$15.00 per 100.

Cash with Order from unknown parties.

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THE AMERICAN FLORIST CO. WILL PUBLISH A NEW EDITION OF THEIR WELL KNOWN TRADE DIRECTORY OF THE UNITED STATES AND CANADA,

and propose to issue the same in time for spring trade of 1890. All persons in the trade who know of any changes from former Directory, either because of errors in that or of new places, are requested to send us the same.

We propose, where possible, to state amount of glass owned by each firm; and all who report to us are urged to state amount they have in round numbers that we may insert the same in the Directory.

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 PRIMULA OBCONICA PLANTS, from 3 & 3½-
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 PRIMULA FLORIBUNDA, 2-inch pot plants,
 60 cts. per doz.; \$4.00 per 100.

Carnations, field grown Detroit	Per 100
" " Colored varieties	\$ 6 10
Chrysanthemums, pot grown, 50 vars	\$10 to 15 00
Begonia Rex	5 00
flowering varieties	3 00
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 Sow at once.

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Fine healthy plants.	Per 100
From 4-inch pots	\$8.00
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QUALITY HIGH.

PRICES LOW.

I attend personally to selecting the finest specimens only, for my seed bed, trying the various
 novelties and discarding those without special merit. Growing seed enough only to produce what
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From the sale of over 100,000 Plants last season I have received numerous
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PRICES: Good stocky plants from seed beds, 75 cents per 100 free by mail, \$5.00 per
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TRIMARDEAU	5	STRIPED	1
FANCIES	5	BLUE	1
BEGNOT	2	LIGHT	1
SE-PLUS ULTRA	1	BOPE	1
GIANT SHOW	2	DARK SELES	1
ROYAL DREERS	2	RED, Fine	2

In complete mixture 60 cents per 100; \$5.00 per 1000. If by mail add 60 cents per 1000.

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Hon. S. M. Emery, Chairman of the committee appointed by the American Association of Nurserymen for the purpose of securing lower rates on Express lines, reports to Secretary Chas. A. Green that a new classification has been agreed upon which amounts to a reduction of 20 to 25 per cent on all Express lines on all shipments of trees and shrubs boxed or baled. Such packages are now classed with produce.

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PALMS—Seaforthia elegans and Corypha australis, fine plants 2 ft. high, from 5 inch pots, \$40 per 100, \$350 per 1000. Palms, 6 species mixed, 18 inches high, \$600 per dozen.

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DRACÆNAS—25 named sorts, from 4 in. pots, \$20 per 100. Terminalis, from 5 in. pots, \$40 per 100.

CROTONS—25 finest sorts, 5-in. pots, \$40 per 100.

ORNAMENTAL FOLIAGE PLANTS—Handsome plants in 25 species, from 4-inch pots, \$50 per 100. Gardenia florida and Allamanda Schottii from 5 in. pots, \$40 per 100; all with buds.

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M GNONETTE—From 2-inch pots, \$300 per 100.

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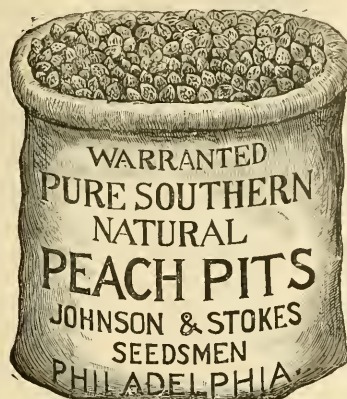
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Art (?) and Nature.

A copy of the fourth supplement to Mr. A. Blanc's catalogue of electrotypes containing prints of a large number of new engravings has been received. On page 67 appears the following: "A CARD:—I wish to say to my customers and to the trade in general, that I am opposed to making EXAGGERATED CUTS of horticultural subjects, and that such cuts are never made by me unless especially ordered. I would much rather engrave direct from photos or drawings true to nature. We have now reached a stage where nature can not possibly compete with art (?) in producing large crops—vegetables, specimen plants, etc.; and it places competing customers, as well as myself, at a great disadvantage, besides lowering the standard of the horticultural trade in this country. The evil has indeed become so great, that I have been obliged to refuse such orders at a pecuniary sacrifice."



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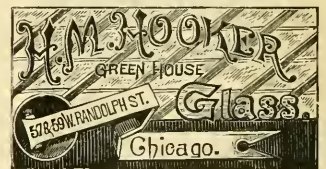


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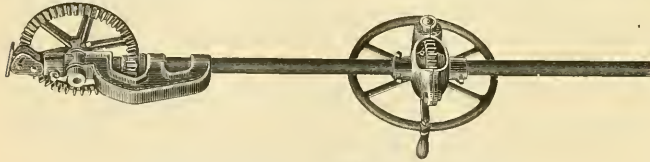
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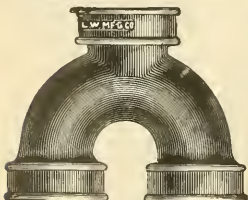
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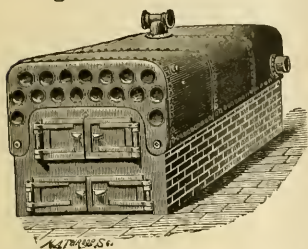
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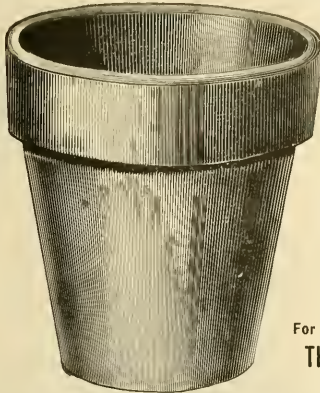
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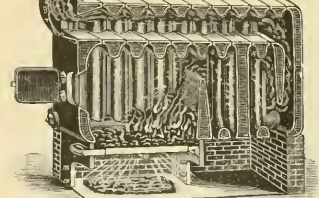
Index to Advertisers.

Advertising Rates, etc.	92
Aldine Printing Wks.	100
Allen, W. S.	93
Bailer F. A.	101
Barredorff & Co.	95
Benard J.	95
Benz Albert.	92
Benger, H. H. & Co.	101
Bianc A.	96
Brague J. B.	94
Brackendrick & Co.	100
Brown R. S. & Son.	98
Brown & Canfield.	94
Burrow J. C.	96
Caldwell Geo. W.	95
Carmody J. D.	104
Chandler B. B.	96
Chitty H. E.	96
Connolly John J.	95
Cox Thos. A. & Co.	98
DeVeer J. A.	97
Devine, Peter.	103
Diez, John L. & Co.	103
Dillon, J. L.	93
Dowens W. J.	94
Greer, H. A.	93
Eisale W. J.	91
Filwanger & Barry.	97
Fly Z De Forest.	97
Fassett, F. E. & Bro.	91
Faxon N. B.	96
Fisher Bros. & Co.	94
Fisk Chas. H.	94
Florida Hall Assn.	96
Foster F. W. & Co.	102
Fryer E.	96
Gardner L. C.	96
Gardner Joe & Co.	97
Gardner John G.	101
Greene W. W. Son & Sayles.	98
Griffith, Jas.	102
Griffith, N. S.	98
Hales, H. W.	96
Hall O. J.	95
Hallock, V. H. & Son.	97
Hammond W. S. & Co.	97
Hammond, Benj.	95
Hammond & Hunter.	93
Hantsch Rudolph.	96
Haston Lattie A.	97
Hendrix W. W.	101
Herendeen Mfg. Co.	104
Herr, Albert N.	95
Herr Daniel K.	99
Hippard E.	102
Hitchings & Co.	104
Holt & Co.	97
Hooker, H. M.	102
Horan, Edw. C.	93
Horan Jas.	94
Hort K. D.	100
Hudson John M.	93
Imlay John D.	99
Jas. J. H.	102
Jennings E. B.	96
Johnson & Stokes.	103
Joosten C. H.	97
Kennicott Bros.	93
King Jas.	97
Kramer N. & Son.	99
Krick, W. C.	102
La Roche & Stahl.	95

Lauer A.	95
Laurence J.	99
Lockland Lumber Co.	102
McCarthy, N. F. & Co.	93
McFarland J. Horace	99
Mappes Bros.	103
Mare Gabriel & Co.	91
Mathews, Wm.	100
Merrick, A. T.	95
Michel Plant & Seed Co.	100
Miller Geo. W.	94
Miller Mrs. E.	99
Moore Henry.	97
Moos Fulford.	96
Mullen Geo.	93
Muller Henry.	98
Nanz & Neuner.	100
Pennock Chas. E.	95
Perkins J. J.	95
Philip F.	97
Pierce Butler & Pierce	103
Pike Co Nursery.	101
Pitcher & Manda.	99
Plenty, Josephus.	105
Quaker City Mch. Wkks.	95
Racox C.	105
Reed & Keller.	102
Renard Jos.	96
Rubsam C. & Son.	101
Richters F. A. & Sohne.	100
Rochrs J.	100
Rolker, A. & Son.	94
Ross & Millard.	100
Sail John.	100
Schiller & Mailander.	100
Schulz John.	100
Scollie John A.	104
Scott Robt. & Son.	95
Shelute W. R.	96
Sheridan W. F.	93
Siebrecht & Wadley.	100
Situations, Wm. & Co.	91
Smith David.	104
Smiths Powell & Lamb	100
Spooner, Wm. H. Son.	94
Stearns A. Lumber Co.	102
Steffens N.	102
Stewart, Wm. J.	93
Storrs & Harrison Co.	98
Strates F. & Co.	93
Sunder N.	100
Taplin S.	98
Thompson Mrs. S. H.	98
Trischler M. & Son.	96
Van der Schoot & Son.	97
Vaughan J. C.	95
Voorhees L. F.	91
Vreeland Bros.	95
Weathered, Thos. W.	104
Weich Bros.	94
Whitall Pottery Co.	100
Whitnall C. B.	91
Wilks S. Mfg. Co.	103
Williams H. W. & Son.	103
Wisconsin Flower Ex.	95
Withold Geo.	100
Wolf L. Mfg. Co.	102
Wood Bros.	94
Woodruff W. B.	94
Young, Thos. Jr.	99
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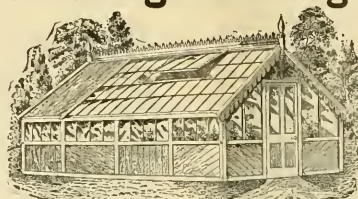
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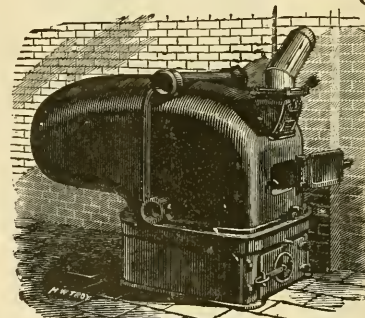
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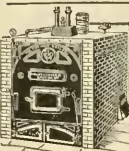
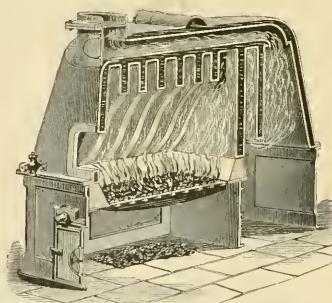
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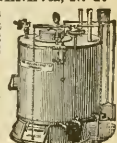
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Vol. V.

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CONTENTS.

Education	105
Practical education	106
Education	106
A suggestion for a pillow (with illustration)	107
Landscape gardening in high colored foliage	107
Andromeda speciosa (illustration)	109
High colors in gardening	111
High colored foliage	111
Obituary—James O'Brien (with portrait)	111
Carnations—pruning	112
Callas and petargonium cuttings	112
Orchids—Rochester notes	112
Arloretum notes VII.	112
Rochester notes	112
Imatophyllum (illustration)	113
Andromeda speciosa	113
Orchids—Rochester notes	114
Hail storm at Philadelphia	114
Boston	114
Philadelphia	115
Wind-tight ventilator (with figure)	115
Leaves of adv. ce from a limb of the law IX	115
High colors in gardening	116
A Reichenbach injustice	116
Catalogues received	116
Coming exhibitions	117
The seed trade	118
News notes	118
A chrysanthemum law case	120
Chrysanthemum Mary Edd	120
Inter state fair at Elmira, N. Y.	122
Great destruction of plants by frost at Ghent 122	122
Caution	124
Montreal	124
Toronto	124
Aqua ammonia as a fertilizer	126

WE ARE ADVISED by Secretary Stewart that the fifth annual report of the S. A. F., giving a full report of the Buffalo convention is ready and will be mailed to all members who have paid their dues for this year. Delinquent members should forward their dues for the current year (\$3) at once so that they may receive the report.

AT BUFFALO a Montreal florist expressed the hope that the Society of American Florists would at no distant day hold a convention in the city from which he hailed. This is certainly worth considering. There can be no doubt that holding a meeting on Canadian soil would have the effect of arousing more enthusiasm in the work of the society among our northern neighbors and bring them into closer relations with a society which recognizes no political divisions of its field of labor—the North American continent.

Education.

BY ALFRED E. WHITTLE.

Whenever any progress has been made in art, science or education the perception of the need was not confined to one mind, but was shared by many who, apparently, were all aroused at the same time to strive for a similar purpose. A like effect may now be observed in this matter of education that is agitating the minds of so many of our leading florists.

That this matter is a vital need is shown by the conspicuous place given to it in the addresses of the presidents of the S. A. F., and also by the notice taken of the subject by the executive committees of the last two years—essays considering this topic having been selected as part of the programme for the last two meetings of the society.

It will be generally conceded by nearly all of our number that education is desirable, not only for a few but for the many; and that there is no profession or business which numbers so many uneducated men in its ranks as this one of ours. For many years gardeners have been content to have this so, not understanding the benefits education confers. They neither wished it for themselves nor desired it for others. But earnest men of the horticultural world of to-day can no longer be satisfied to see all other professions surpassing them in mental culture and scientific attainment. The writer can see no reason why a gardener should not be a man of considerable information, able to observe and to investigate, competent to hold his own in any society. He utterly fails to perceive why any man of advanced education should be less practical or lose any of his mechanical ability.

So many are imbued with the idea that practice and theory can not go together—that if a man is educated beyond the common he at once becomes unfitted for all manual labor. The fact that this idea is so widely prevalent does not prove its truth. Some of the most erroneous notions are those that are most generally entertained. And certainly no greater error exists than this: That because a man is taught the value of knowledge and is trained to apply his knowledge to the improvement of his business, or his profession, he thereby becomes unfitted for all manual labor. This is a fallacy that surely must be apparent to all earnest thinkers.

It is an old aphorism that "Knowledge is power." If knowledge is power in any other undertaking in life it is equally so in horticulture. Only by knowledge, or rather, by the application of our knowledge are we able to unlock the secrets of nature, whose humble disciples we are. It is contended that men can be just as good gardeners irrespective of any education whatever. We will grant that there are exceptions—that some uneducated

men are just as good cultivators—that to be a good cultivator it is not absolutely necessary for a man to be educated other than by the education of observation.

Such a man is not a gardener—he is called one, but his capacity is very limited—usually mechanical and not progressive. Let such a man who, despite innumerable obstacles, attains to so much skill receive the training of an advanced education, and is there any one who will refuse to concede that his capacity must surely be enlarged? Why should it be thought that education will impede mechanical skill? That when a man loves plants and flowers—his whole soul absorbed in them—a knowledge of the sciences which treats of them will destroy his efficiency as a workman. If an educated man is an idler, or despises labor, the fault is not in the education he has received, but in the lack of a proper and systematic training. Usually the more a man knows the more he wishes to know. The harder he works the more he wishes to work.

We may then safely assume that the greater number of gardeners of the present day are quite satisfied as to the necessity of more thorough knowledge among us. That it is the part of the progressive men of our profession to think of what is needed and to seek to establish some way by which a scientific education may be made available for all desiring it. Agitation which ends in inaction is of no benefit whatever. Discussion that effects no improvement is merely a waste of words. The question has been agitated, we have had discussion, let those of us who are so interested in this subject take heed that this movement does not end in words.

Various ideas suggest themselves to various minds. An excellent method of education was adopted by Mr. Peter Henderson at the New York meeting of the society, and it must be gratifying to that gentleman and to all who seek for mental development to notice so many competitors for the \$100 premium offered for the best herbarium. What greater good can the society do than by offering each year premiums of a similar nature? The work entailed in gathering native plants for an herbarium is education—education of the very best kind.

The last president of the society suggested that public exhibitions educate, and that much could be done to promote taste and skill by advocating their extension. As to this, all will be agreed. Still as they are managed at present the premiums offered at most of our public exhibitions are not inducements for study by which the mind may be developed as much as they are for more skillful methods of cultivation. This premium for an herbarium stimulates not exceptional skill, but a knowledge of classification and nomenclature—a knowledge

that almost all gardeners are deficient in. The idea is offered here for the consideration of the Executive Committee of the S. A. F., as it is firmly believed that our society should be the pioneer in all efforts that tend towards the development of our profession.

The establishment of an experimental garden, recommended by another president of the society, is yet but a suggestion. That this idea if carried out to a practical issue would be a permanent gain to us all few will doubt. But how to make it practicable is the difficulty. A garden of this kind would need considerable funds in the carrying out of a well devised plan before it could be of any real use; and as it should be national and not local it seems impossible that any undertaking of this nature could ever become a lasting success without the assistance and supervision of the Federal Government.

We have no ground for believing that this can be obtained. The need is not apparent to our legislators, and none of us are likely to make a business of lobbying in order to bring our need to the attention of the men who have the spending of the public money. How grand it would be though if the government would establish a garden in different sections of the country to aid in the development of horticulture.

Mr. Battles in his essay upon "education" read before the last meeting of the society also suggests a good plan to assist young men—and older ones likewise in their efforts to obtain information. His proposition is for the florists' clubs of the various cities to establish libraries for the use of their members. It would be somewhat interesting to know how many books each club in this country possesses, which are placed at the disposal of the members. The purpose of every florists' club should be mutual improvement. It should not come together solely for social intercourse. The essays that are read before various clubs by different members do educate and stimulate progress; yet if a well selected library is absent much is lacking that the club might accomplish in the way of education. Many of our most valuable horticultural works are quite high in price, too high for any of the young men of the gardening world to buy. Yet it is these young men we propose to help. How can we do it in any better way than by combining to provide for their use the many serviceable books that pertain to horticulture?

The assumption, then, may be taken for granted that florists' clubs can be educators, and help materially the intellectual progress of their members, but the particular help they render can not reach all. Clubs must necessarily be confined to the larger cities, on account of the number needed to support one. Therefore their influence must be limited in their scope and confined to populous neighborhoods. But as we are all well aware the majority of young gardeners live away from these cities and a large proportion of the members of the clubs are not gardeners, but men engaged in the business of selling the products of florists' establishments, the benefit accruing from the maintenance of a library, and the circulation of the books contained in it, by a florists' club would but very partially attain the end for which it was designed. How, then, can horticultural books be placed within the reach of all who desire to use them? Simply by the formation of libraries in accordance with a plan previously suggested—

namely, that employers shall make this matter a part of their duty to their workmen. The idea is not by any means a Utopian one, but is essentially practicable.

The beginnings of an undertaking of this kind need not be of an extensive nature. The first consideration must be a room well lighted, well heated and properly ventilated. To provide this and to fit it with desks, tables and chairs would have to be done at the employer's expense. Besides this he should furnish the necessary funds for the purchase of a few books and papers. The after expense of maintenance might be shared in some way by both employer and employees. Experience would soon devise a satisfactory plan.

In all projects having progress for their aim the only obstacle that finally defeats the purpose is discouragement. Men as a rule do so soon become discouraged. Especially is this the case in enterprises that are started for the benefit of our fellow men. We do so like to be left alone, we hate to be roused from comfortable sleep. So many benevolent enterprises are commenced from a kindly impulse, but as soon as the indifference of those to be benefitted is manifested all interest in the project is lost. Persistence should be the rule in these undertakings, as much as in those in which our livelihood is concerned.

The expense of an undertaking of the nature recommended would be rather a burden to some—perhaps to many—but if commenced and persevered in it would result in such lasting benefit as to more than compensate for a burdensome outlay. It would be advantageous to ourselves as well as those whose services we require. Look at the rooms that are usually provided for our young workmen. Where is the comfort? Is it any wonder pleasure is sought outside of the four walls? If our workmen are better educated they will become thinkers. From thoughts come ideas, from ideas spring action, and action means progress.

A thoughtful workman will always be the superior of a thoughtless one. Provide him with information about his work—food for his mind to feed upon—and he will think about this work and strive continually to ascertain fresh facts to apply them.

That all the workmen at any given period will reach this standard no one will be so foolish as to assert. Suppose, however, that there is always one interested in educating himself—the employer would not experience any financial loss. To have one thoughtful man on the premises, whose heart is in his work, who is ever studying methods of improvement and developing original ideas, would be to any employer a gain not to be measured by dollars and cents.

The owners of many factories—railroad corporations—and other extensive employers of labor find it to their interest to expend large sums in providing for the comfort and education of their employees during their leisure hours. So may we do and also find that it is to our interest to give attention to this subject.

Practical Education.

On page 68 of the AMERICAN FLORIST is an article on "Scientific Education of Florists" in which the theory is advanced that the aid of the general government could be obtained in founding and maintaining a school for such a purpose. Now it strikes me that it could not be obtained because there are now a large number of agricultural colleges which would be re-

ferred to as doing that very thing. Is this so? Yes and no. They do teach many branches desirable to the trade, but it is a case of too much theory and too little practice, also there is not enough for the wants of a practical florist.

That such a college or training school would be a grand good thing is conceded by all, but the practicability is questioned. Perhaps if the doubters would think a minute this would not be so. We can undoubtedly have a good practical training school for the trade. How? Let a stock company be formed, secure a tract of land suitably located, erect a range of greenhouses of the most approved pattern, dormitories and recitation rooms suitable to the requirements of such a school, make the requirements for admission such as would be furnished by a common school education and the course of study as thoroughly practical as possible without cutting the scientific part to too great an extent; make the expenses to the student as low as possible, and you will have all the students you wish.

As to the course of study, let it embrace enough of the English branches to give a good knowledge of the use of our language; bookkeeping enough to be able to carry on a business; botany, embracing structural and physiological; plant growth, etc.; entomology, enough to know something about the injurious insects; elements of geology and composition of soils; elements of chemistry and composition and value of fertilizers; elements of landscape gardening; and such other things as would naturally pertain to the business, viz.: Hybridization, grafting, budding, pruning, etc. Let there be enough practical work in the plant houses, hotbeds, frames, nursery and field as to give a good knowledge of the cultivation of plants; and let there be arrangements made whereby men in the trade could come and study and observe as they could and you would have as good a trade school as there is in the world.

Such a school would maintain itself after a short time. Perhaps not make any money for the stockholders other than giving them men that could be obtained in no other way, besides elevating the trade generally to a higher standard. That in itself would be something that we are all looking forward to.

ALFRED B. COPELAND.

Springfield, Mass.

Education.

Talk about the education of our young florists and the elevation of our business, didn't we have a practical illustration at Buffalo in the case of the herbariums of wild plants? I have seen a good many herbariums, private, and in scientific institutions, but I never did see a neater or better gotten up arrangement than the one at Buffalo for which the first premium was awarded. The specimens were good, typical, well dried, carefully mounted, correctly named and noted, and tied up in folios which were marked with outside labels indicating the natural order, and these were arranged in botanical sequence in a neat and serviceable cabinet. And on the inside of the cabinet doors the orders were most neatly indexed, and also the number of genera, species, etc., in each was stated. It was a vivid lesson to many of us. It taught us neatness, completeness and accuracy, and, in fact, how to get up an herbarium. And this exhibition of skill, energy and finish was the work of a young practical gardener. Another of the herbariums was gotten up by a florist in Canada. This is a capital



A SUGGESTION FOR A PILLOW

showing in our calling. I regret that I don't know, except by name, the owners of the other two herbariums.

Did the people appreciate these efforts? Indeed they did. I did not enter that hall at any time without finding some people, both men and women, pondering over the herbarium folios, not indifferently or as a matter of curiosity, but critically and with earnest interest. And what a refining and educating influence this sort of work imparts! Yes, and useful too. The donor of the premiums tells me that before he was 18 years old he had been the recipient of two medals for similar herbariums, and to the interest incited in getting them up he attributes the foundation of the methodical ways that gave rise to his successful business attainments.

Let us suppose that you have a family of children growing up about you. If one of them undertakes to get up an herbarium of wild flowers, every other child in your family will help him, you yourself will help him, his mother will help him, his schoolmates or fellow workmen will help him, and in so doing everyone of you are being educated. As his collection of wild flowers increases, his enthusiasm and knowledge increase, his mind broadens, and a love for flowers becomes a part of his being. Now, an herbarium is not a thing one gets up today and throws away tomorrow; it lasts "forever." And the older it gets and the more that

is added to it the more valuable and interesting it becomes. And for reference what a splendid adjunct to one's business!

Parents, if you yourselves are too busy to begin this sort of thing start your children at it and I am sure the joy it will give them will be very gratifying to you. It's when the dear little wanderers—your own sweet little flower-gatherers—come bounding up to you in their delight with, "Papa, see this lovely flower that we have just found down in the meadow there, please tell us what's its name?" and you, their father, and a practical florist too, do not know, that the sting of remorse must pierce your heart, and you would give a good deal if you did know and were able to tell your child.

W. F.

One Suggestion for a Pillow.

This design was first filled in with balsams, making a pure white and symmetrical pillow. The roses used were Perles, Brides and La France, all on their own stems, a few rose leaves and several sprays of ferns.

There are so many ways that pillows can be arranged that we can not understand why some florists should persist in clinging to the old method of first making a line of carnations in the center, with the letters "At Rest," the latter seldom made or put on well; around the carnations a border of tuberose and lilies in the corners.

We think that a few delicate tinted flowers add to the effect of all funeral designs and advise strongly against flowers that are very fragrant.

H. H. BATTLES.

Landscape Gardening in High-Colored Foliage.

BY WM. McMILLAN.

[Read before the Society of American Florists at Buffalo, August 22, 1889.]

Landscape gardening is a subject that embraces a very wide field, only a small corner of which is occupied by the florist. An ornamental landscape is not merely a composition of choice trees, shrubs, grass and flowers, but includes as well every inorganic element of nature embodied in the scene. The "lay of the land"—to use a familiar phrase—is in a double sense the ground work of the composition. This includes every form or feature which the earth's surface presents to us, from the flat plain to the beetling cliff, every variety of hill and vale, ridge or dell, bare rock, sterile sand, or rich soil; and also water, flowing or still, of whatever volume, large or small. Even the atmosphere must be included as a part of every landscape, for the scene varies with every variation of sunshine or shade, dim haze or clear sky, still air or stirring breeze. The lights and shades of a landscape painting are

carefully studied, and whatever is appreciated in the copy is surely of greater value in the original.

In the embellishment then of any grounds of sufficient extent to have a distinctive landscape character, the gardener must take into account all the impressive and attractive natural elements of the place. The general aim of his work will be to make an harmonious combination with the dominant characteristics which nature has already stamped upon the site. He will seek a fuller or richer development of the essential leading features, simply softening what is hard, clothing what is bare, filling out what is meager, and enriching what is beautiful, all in harmony with the original type. He will thus avoid all novel conceits, all conspicuous eccentricities, all incongruous intrusions, and be guided by his understanding of the laws of nature as enacted by the ruling Divinity of the scene, and his sympathy with them.

I lay special stress on this fundamental principle, because it seems to be so commonly overlooked or ignored in ordinary landscape gardening. In fact the very opposite rule is followed in much work that is done, and the result receives much popular approval. It is a common thing to value the decorative work on any given site in general proportion to the degree in which it is obviously artificial, new or peculiar. This unfortunate fashion seems to pervade every branch of landscape work. Instead of the artificial being subordinated to the natural, it is made specially prominent, and in some cases it even becomes the "be all and end all" of the scene. For instance, drives and walks are made unnecessarily broad, or sinuous, or prominent, or intrude where not needed. A sharp terrace is formed mainly to display its bold lines, or a channel is dug for an artificial rannel, to give occasion for introducing a bridge. Summer houses, arbors, rockeries, pools, fountain basins and jets (usually dry), clumps of trees and shrubs, or beds of flowers and foliage plants are stuck around promiscuously in conspicuous sites, without any fitting relation to the natural conditions of the landscape.

A common phase of the same taste is shown in the popularity of the class of plants which propagators call "sports." This includes that numerous list which pads out the pages of most catalogues, the endless varieties with the leaves abnormally shaped or colored, or with a drooping or contorted or dwarfed habit of growth. Very few of the plants of this class are as hardy, vigorous and healthy as the normal type. It is probable that their peculiarities in color or habit are due to some unhealthy condition of the sap or defect in the channels of circulation. But in spite of this relatively weak growth, sickly color or deformed shape they are all popular favorites. The paler and feeble and more distorted the growth the more they are liked and petted and pampered. A few of the best of this class may be sparingly planted as foils or specimens or curiosities merely, but never in proportions to rival those of the true type of each species. For general use the natural color and shape are more pleasing and satisfactory, not only because more vigorous and durable, but also because they are in accord with the true order of nature, while the others are not. Nature in fact disowns her "freaks" of this sort by the general sterility of such offspring. Their reproduction depends wholly on artificial propagation. It were better to

let them all die a natural death than to treat them as if they were nature's finest productions. Her sanction to their continued existence is given only when the seed if produced at all is true to the parent.

The variation of plants under domestication is no doubt a part of the true economy of nature. When the offspring is equally healthy, hardy and comely as the parent or type, the propagation of the new forms may be desirable. But why should we rescue from their natural fate of extinction so many variations that have defective vitality or some constitutional deformity. For example, most of our so-called "weeping" trees are of this class. In the Weeping Willow, White Birch and others, where the young twigs are long and slender, the pendent spray is natural and pleasing to the eye. But where the downward growth is apparently due to some constitutional kink, as in the Weeping Ash or Mountain Ash, the general aspect of the tree gives a painful impression that it is making a prolonged effort to recover from some crushing accident. A similar unpleasant feeling is aroused at seeing the healthy green, so natural to all foliage in the growing state, becoming blanched with white, jaundiced with yellow or livid with purple. It is fortunate that plants, notwithstanding much cruel treatment by cultivators never become subject to a "fit of the blues." If by some violent medication or heroic surgery our "professors of plant propagation" could produce blue leaves their triumph would be complete, and the new color in foliage would at once lead all the rest in popular favor.

The prevalent fashion of using plants with leaves of unnatural hues is most strongly shown in the rapid rise and wide extension of this practice for decorative work in gardens and lawns. "Carpet bedding" and "ribbon gardening" have become an important branch of the gardener's work, and even of the florist's. The trade of the commercial florist in foliage plants is probably greater than in plants grown for the flower garden. Though this is a society of florists, it is quite probable that their interest in landscape gardening is due more to this class of foliage plants than to old fashioned garden flowers. The proper fitting and furnishing of the flower garden or rather the new foliage garden and its relation to adjacent grounds are therefore to you the most important parts of my subject.

What then are the ruling principles which should govern in the decorative work of a garden? In this as in all other things there can be no absolute standard of taste. Personal preferences will vary as the early associations and later education of each individual may vary. But good taste has certain recognized canons by which it may in a general way be judged. There are some fundamental principles accepted by the common consent of the community because in accordance with common sense. On strictly private estates where chiefly the eye of the owner is to be gratified he may ride to his heart's content any hobby that may please him. But in places exposed largely to the public eye as in ordinary villa grounds, suburban gardens and public parks, it is well to have some respect for long established usage, and conform more or less to the general customs of the time and place. Novel ideas will be introduced modestly and not generally adopted till they have stood the test of the fullest criticism. This means more than the ready applause of

the populace which daring novelty is sure to elicit; more than the hotbed stimulus of a fleeting fashion, however popular for a time. Some of these leading principles which should guide the landscape gardener may here be briefly stated.

Flowers and showy foliage being professionally used for ornament should of course occupy the choicest site of the home grounds. The work being necessarily formal and artificial, there will be no incongruity in the close proximity of rigid lines; and the dwelling house may be as near as will best suit the general convenience in the use and enjoyment of the garden. The nature and extent of the collection will of course vary with the taste and means of the owner. The finer the design and the greater the variety of plants the better, so long as there is ample room for all in fitting proportion to the intrinsic merits of each kind, and to the general plan of the whole garden. It is well not to make any ambitious or pretentious display unless it can be easily and willingly kept in perfect order at all times. The immediate setting or surrounding of the garden should be in keeping with the central design. It is poor taste to make a gaudy show of fine flowers or bright foliage if adjacent grounds are weedy and seedy. It is equally bad taste to intrude such plants in formal masses into outlying portions of the grounds mainly devoted to other uses. Even on the ordinary lawn the quiet repose of the green sward may be disturbed by some garish mass of high colors. The discord is equally great when formal beds of like character are scattered along the lawn border amid irregular groups of shrubbery. This incongruity lasts the year round, for after the tender exotics die or are removed the bald plots look equally foreign to turf and coppice. A lawn is one thing, a flower garden another. Grass has recently supplanted gravel in the garden, thanks to the lawn mower. But only in city lots can the plants be properly in such relative proportions to the turf as to convey the idea of both garden and lawn.

In furnishing the flower garden the selection of plants has radically changed with the introduction of "carpet bedding." Old fashioned flowers are now at a discount, and in fact all kinds of flowers unless the color be intense, or strongly variegated or blotched. Delicate tints and shadings or fine perfume are of little account. What is wanted is color only, and color that will strike the eye a long way off, and even then it must be set in large masses to have the much desired dazzling effect. Quantity, brilliancy, oddity, novelty are the chief attractions. The individual plant is nothing, the effect in mass or in combination is everything. In foliage plants high color, strong contrast and fanciful figures in design receive the most favor. The individuals are ruthlessly snubbed and pinched to hide the true character of the plant and show forth the art of the planter.

Is this new fashion better than the old way? Formerly flowers were cultivated solely for their individual qualities. Delicacy of tints and lines was more valued than strong color, and fine perfume more than either. Our regard for them was in direct proportion to our knowledge of the finer traits of character gained only by intimate acquaintance with their daily behavior under all circumstances. Our love was for the individual plants rather than for the general



ANDROMEDA SPECIOSA. [SEE PAGE 113.]

assemblage—for the features revealed by close acquaintance, not merely the strong lines seen from afar. It was won by the true test of long familiarity instead of “at first sight” by fascinating novelty.

The general aspect of mixed borders of bulbs, annuals, perennials and sweet smelling herbs, or of miscellaneous collections of favorite flowers in rectangular panels, was not so neat and trim as clipped beds of fancy forms on shaven lawns; but all the season through, from the first snowdrop to the latest aster, each day brought another flower into bloom, and an ever changing phase in the annual growth of each plant to maturity. Our chief foliage plants in this latitude do not last quite four months, and their general aspect is the same from the first day of the foliage, or a slight increase of color. Color apart, a bed of pot herbs has less sameness throughout the season, while the fragrance their leaves exhale is a constant source of pleasure more refined than can be given through the eye by any variegated leaves, however finely veined, stained, mottled, spotted or spashed. To the true lover of flowers high color either in leaf or blossom is but one of many points of interest. The habit of growth from the swelling bud to the fading leaf may be a greater source of enjoyment, or the fragrance of the bloom may be the chief attraction as in sweet alyssum, mignonette, heliotrope, violet and lily of the valley.

Where the interest lies chiefly in the foliage such bedding plants as give a tropical luxuriance of growth are surely a finer sight than any mixture of the carpet bedding class. Various kinds of canna, caladium, aralia and castor oil plant are commonly used in such beds, but there are many others of like character. Their rapid growth and great size at maturity give a sub-tropical aspect to

the group. Some of the sedges and grasses of warm climates are especially beautiful and effective for this purpose. Some plants of this class have a striped variegation with a truly natural look and much real beauty. It may have originated as a “sport,” but when it has long been known it conveys no hint of being odd or ephemeral. The eulalia, striped maize, and even the old fashioned gardener’s garter are well known examples.

“If variety, richness and contrast of color be the chief aim of the florist why should he seek it in leaves of plants, beyond the natural range from the lightest gray to the darkest green which nature spontaneously exhibits. The shades of green are so infinite that no two species of plants have exactly the same hue, and the manner in which these mingle and blend in any natural landscape, if closely studied and copied, will give more real pleasure than the highest art in arabesque designs in white, yellow and red. If all the colors of the rainbow be wanted in a group they may be furnished in flowers. Every shade imaginable may be matched by some plant. But the taste is surely morbid that would seek to combine in one group any greater variety of tint than may be furnished in many cases by a single genus, as in the tulip, hyacinth, phlox, dahlia, hollyhock or columbine. Yet the hunt for a blue dahlia or hollyhock, a yellow aster or verberna, is still kept up, and is akin in spirit to that in which some new mixture of white, yellow and red in the leaf is sought after. The whole work is false to nature and the foreign color due to disease or distress rather than ‘sport.’

“In the present fashion of using strongly contrasted colors in garden decoration, the strong tendency to run to extremes is well shown in the style of embellishment among the poor for their small dooryards or parterres. It has been well said that

imitation is the sincerest flattery. Hence, we often see in such places a collection of pebbles and cobbles, oyster and clam shells, and such like, arranged in border edgings, ribbons and mounds on the carpet bedding style. When newly white-washed these rival in force of color and distinctness of design any foliage bed. The imitation is sometimes very good, and who now can question the taste displayed or the fitness of the materials used? Round pebbles or even shells make an admirable substitute for the fleshy vegetable rosettes we call ‘hen and chickens.’ They will border a bed or outline a figure with equal distinctness, and vary as little in form or aspect during the season. For inlaid letters in the grass they are even better adapted than the plants we see used. The inscription is clearer and easier to read, and the whitewashed stones and shells are really the most befitting material for such work. Shakespeare wrote it would be folly to ‘gild refined gold, paint the lily, or add a perfume to the violet.’ His satire would have lost its fine point if in his day it had been as common as it is in ours, to embellish dooryards and lawns with white-washed quartz or painted sea shells, to decorate graves with dyed immortelles, and mantelpieces with stained grasses, or add a new scent to a bouquet with drug store perfumery.

“That the taste is corrupt, which approves or applauds the prevalent practices of gardeners in this line, is sufficiently shown by the obvious tendency of the fashion. The motive is not to encourage an intimate acquaintance with flowers or plants, but simply to show what brilliant or bizarre effects can be produced by ingenious combinations of strange colors. Hence the demand for novelty and intricacy increases from year to year, and the strain after effect continues till the laborious effort becomes grotesque or burlesque. The first designs in ribbons, bands, diamonds, stars, crescents, crosses, crowns, hearts, anchors and such like no longer suffice. In like manner simple figures of the geometric pattern are only of use while novel. They must gradually grow in elaborate intricacy till simple wheels and dials become a blind maze of scrolls and convolutions. Then imitations of animals begin and advance from elephants and camels to zebras, giraffes, swans, peacocks, butterflies, snakes and sea serpents. Inscriptions in the grass are also tried, giving perhaps the name of the place, the year or month, or date, the last of course to be changed daily, and so on with labored variations till every possible device be exhausted. The same designs give little satisfaction if simply renewed yearly, for such things once seen have lost the novelty which is their chief claim to attention. The fashion must surely soon run its course because of sheer inability to produce startling effects. If it were the plants under natural conditions that were visited their seasonal changes might satisfy the eye. But we look at them only in bulk to follow the design, and that is always the same throughout the season. When invention flags or fails the popular surprise and admiration is drawn out by making larger beds or a greater or more elaborate assortment of them. This has led onward and downward till collections of several hundred thousand plants have been set out in some private gardens and public grounds.

“The absurdity of the leading motive in carpet bedding may be found in listening to the kind of talk we often hear from

ardent enthusiasts of the practice. A shallow amateur in such work who has not before seen the highest art in this line visits some notable display on some fine private estate or large public ground, and on his return regales his gaping friends with some such description as this: "You can form no idea of the immense quantity of plants in such a garden. A 10-acre lot would be well filled if all were put together. The edgings and ribbons if strung out on end would measure over a mile. They were of nearly every imaginable color you can find in the stores. The ring-streaked, speckled and spotted plants, and those with all shades of bronze and gold were legion. They were set out with the most wonderful ingenuity into so many patterns that carpet bedding was no name for it. There were Turkish rugs, church windows, wheels within wheels, figures of animals, statuary, fancy penmanship and plain print, and elegant figures of all kinds in geometry, trigonometry and astronomy."

What? Astronomy! "Why certainly." "The first thing that struck my eye was a bright bed of fire red coleus, a circular mound raised high up in the form of a half globe. That was a sunset when there is a thick haze on the horizon. Near by was a crescent in variegated alyssum. That was the silver moon. I could not tell whether she was in the last quarter or the first; the horns pointed to the north and were equally correct for either phase. Next came a bed that seemed a combination of both the others. Two-thirds of it was filled with the darkest leaved coleus, the other third was a crescent of variegated stevia in bloom. This was an eclipse. I could not at first tell whether it was the sun or the moon that was eclipsed. After a little study I 'got on to' the gardener's trick. It was either or both, according to your pleasure or fancy. All around were lots of little stars and one or two small disks curiously belted and girdled. Having seen pictures of the telescopic appearance of Jupiter and Saturn I at once divined the meaning.

"There was any number of figures of men and beasts and birds and fishes. A military officer in full uniform was very imposing. A base ball player with club drawn and two prize fighters in full tilt looked dangerous. A boat race of two boats and two rowers in each pulling the oars was quite exciting. In statuary the finest design I saw was a copy of St. George killing the dragon. It was full of spirit and action. A little puff of wind now and again crossing the dragon's head made his jaws seem to open and shut quickly. The feathery stuff used for the tail of the steed actually whisked gently in the breeze.

"The brightest spot of all had a display of flags of all the leading nations. The tricolor, the union jack and even the stars and stripes were easily imitated, but some of the others tried the highest art of the gardener. In the geometry section I was for a long while puzzled by a most intricate figure, the meaning of which I could not make out. At last I detected a faint outline of an arch spanning the whole; that gave me the clue. It was the tough problem in Euclid called the asses' bridge. I remember how it puzzled me when at school, and it is just as hard to see through it in a flower bed."

This "traveler's tale," like the plants he saw, was perhaps rather high colored, but it is in the same line with the general run of such talk. He may have followed the wrong cue at times, but he did not

stray far from the right track. A lively imagination may have seen some figures and emblems not intended by the designer. But worse things than any here described have been actually done. Butterflies have been attempted in a combination of leaves and flowers, living and dead, trained to a frame and set in high relief that they may seem merely to touch mother earth. For special gala occasions models of swans have been covered with newly detached petals of water lilies and set afloat on artificial ponds. Calendars, sun dials and weather vanes have been tricked out in living plants, with painstaking care to furnish daily some useful information, in no other way obtainable, about the weather, the date of the month and time of day (if the sun shine). These ridiculous conceits and all other monstrous creations of this kind are strictly in accord with the ruling motive of the simplest work in the same line. It is either folly or falsehood from beginning to end, because so at variance with the "eternal fitness of things."

The many odd and whimsical patterns into which foliage plants are woven, are in degree only (not in kind), more objectionable than the mere grouping together of large masses of strong color of every hue. Were this display confined to flowers only, it would not perhaps be so glaringly offensive as in foliage, because in flowers brightness and endless variety of color are natural. But to collect together, even in flowers, all the strongest colors we can find, and to mass them into strongly contrasted bands and figures in the present bedding out style, would surely not be considered in good taste. Should we not seek for rich shades rather than glaring contrasts? For quality rather than quantity? As a lady of fashion once wittily said: "Do we measure beauty by the square yard?" Strange though it may seem, there are some persons who would prefer one sweet violet to one acre of coleus. But in carpet bedding it is the broadest carpets and the boldest patterns that draw the biggest crowds. To the commercial florist that is a better "trade mark" than the "government stamp." Whether it elevates or degrades the public taste seems of less consequence.

But fashion is a fickle minded queen, especially to subjects of her own sex. When a fancy notion of no intrinsic value has literally been run into the ground, as this one has been, a slight hint from the throne would quickly change the vogue. Florists nowadays are like milliners in their abject dependence on the latest whim of Her Majesty. It may therefore be more profitable in the long run to give timely regard to the more general cultivation of such bedding plants as will attract attention by some admirable quality inherent in each individual plant, whether it be in flower, fragrance, fruit, foliage or form. To embellish a garden with such plants, however uninviting at first it may be to the ignorant, will give more real enjoyment to the true lover of flowers than to emblaze it with merely so much high color cleverly arranged.

In other things a fondness for loud colors is not considered in good taste or a sign of refinement. Take dress for instance. The phrase, "barbaric pearl and gold" is as applicable to the color as to the richness of the apparel. The fashions in dress of the Chinaman, the Arab and the Turk are not copied by civilized nations, or if imitated at all it is done only by ignorant and foolish people. Aunt Dinah may go to her work in the cotton field in a yellow skirt, blue wrap

and red bandana. Giddy girls may wear "dolly varden" calicoes, and silly duds loud tartans, only to be laughed at by sensible people. The circus clown is true to his assumed character in his suit of strongly marked stripes and bars, and Shakespeare's fool quite consistently exclaims, "Motley is the only wear." When we dress up a garden after the same fashion it ought to seem equally barbaric and foolish, except to ignorant or foolish people. True refinement in either case avoids the cheap and conspicuous, and selects for the richest adornment the choicest material and the softest harmony of tints.

Some of you perhaps may say that "as gardens are made expressly for show and ornament why not bedeck them with anything and everything that is bright and beautiful?" But what is the beautiful? "Aye there's the rub." No satisfactory answer can be given to that question. It is a common saying "there is no accounting for tastes." Beauty appeals mainly to the eye, but in some subtle way we become sensible of it through other senses. We may not touch it but it touches us. In a double sense we judge it by taste as well as by sight. A ripe persimmon has a brighter color than the finest apple, but after you try to eat it the bloom on the apple cheek will probably have to your eye the more inviting look. There are some persons who doubt if to them "a rose by any other name would smell as sweet," or if with its delicious fragrance gone it would look as sweet. On a warm summer day, when a gentle breeze fans the foliage of the birch or poplar, the rhythmical patter struck up by the dancing motion of the joyous leaves, will thrill sweet music in the ear, and thus reveal a new glimpse of beauty to the eye of any one lovingly familiar with these trees, and in sympathy with their merry mood at such a time. This phenomenon may not be audible nor visible to other people, because however intently we may listen or look, the strain will not be heard nor the vision seen, unless our ears be attuned to the right key, and our eyes be opened to receive the light. Our sensibility to the beautiful in nature thus varies with each individual, as so much depends not only on the relative acuteness of our senses, but also on constitutional temperament, mental faculty and personal culture.

Beauty of color especially depends largely upon the light in which it is seen. For illustration, take these opposing views regarding foliage plants. To you as florists your exotic plants look so beautiful on the greenhouse bench among their own kith and kin, that to your eyes an illusive halo may surround them when you see them set out amid the grass and gravel and shrubbery. When you look at the landscape from the inside of your glass houses your plants are in the foreground and all else is dim, distant and diminutive, as if seen through the small end of a field glass. I, on the other hand, standing out amid the native vegetation, see only the "foreign look" of the strange foliage. Because it is "not to the manor born" I may look at it through jaundiced eyes. The point of view being so different the objects seen must have an equally different perspective.

It will seem to you therefore that I have got hold of the wrong end of the telescope. This may all be. Most people see as you do else such work would not be so popular. But here and there I have met a few whose vision seemed as strangely affected as mine. We may be

color blind to the beauty without knowing it, or we look at these things by candle light while you are in the sunshine. My standpoint may be a wrong one, but I simply report things as I see them, and say frankly why I don't like them. To both sides, perhaps, the aphorism may be applicable: "things are not what they seem."

High Colors in Gardening.

Mr. McMillan's essay on landscape gardening has quickened our spirits and set us thinking, talking, writing. He has denounced our "bedding" in parks in vigorous style and is unsparing on high colors and carpet patterns. He assails us because of our conceits, eccentricities and incongruities, and ridicules our taste as being barbaric and corrupt. And he sternly points out to us his ideas of the paths of rectitude. We must respect the man and give ear unto his words, for he is an eminently practical and intelligent gardener, and has the courage of his convictions.

But there are other sides to this question. A public park or garden is the people's garden, and in it the people have a right to expect, demand and have a liberal display of flowers, in variety and quantity, throughout the year, and if they don't have this they themselves are to blame for it, for they own the park and pay for its maintenance.

A public park should be a public attraction, a recreation ground, a pleasure ground, a health resort, a missionary and a teacher. Beyond being a simple landscape picture through which the people may ride and walk and picnic in its groves and play upon its lawns, a park has a further mission to perform. The intelligent, popular park management will exercise every fair means within its power to draw the people out of the city into the park, and the simple landscape picture will never do this effectively, this can be done only by rendering the park so attractive that the people cannot resist visiting it.

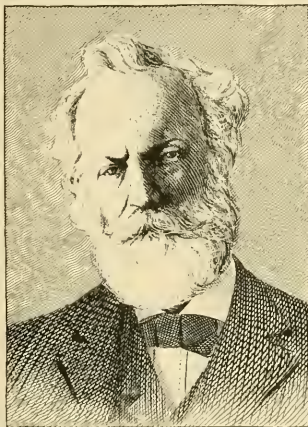
The most appropriate ornamentation of a city park is its floral decorations and these need not be antagonistic to the picture, but rather a refinement of it. All manner of hardy flowers are complementary to the park picture and should be displayed, naturalized as it were, in fitting places and with telling effect. These plants were never more popular or freely used than they now are, but the introduction of a herbaceous border would be an execrable innovation.

Every city park should have a flower garden, and provision should be made for it in the original plan. And this garden should be lit up by the very plants upon which Mr. McMillan so unsparingly showers invective. These plants of themselves, individually and severally, are beautiful and capable of being arranged with much elegance and nicety, yea, even with graceful tracery. Quantity is vulgar and blazing masses are wearisome, and the "grotesque and burlesque" may be ridiculous, but they have one redeeming feature: Many people will come to see and gloat over these plant-painted designs and patterns who could not be drawn into the parks by any other means short of a circus, prize fight or horse race. And they will come again and again and bring their families, friends and acquaintances with them, and in this way enjoy the good and share the luxury of our parks—fresh air and a healthful, peaceful and beneficial outing. And, besides, they will find an abundance of what is natural and elegant in arrange-

ment, captivating in flowers and soothing in landscape repose.

Beautiful flowers always inspire admiration and love and their very presence elevates the mind and refines the being; immorality or depravity is never associated with or suggested by them. All people love flowers and beautiful plants, and where shall they look for them in perfection and gay estate if not in the city park or public garden? And it is worthy of note that the parts of the park unadorned with flowers are the least frequented, for the chief attractions of a park are not so much where people ride in carriages as where they congregate afoot and loiter most.

Some who would not introduce painted flower beds into the park at all "are in favor of a liberal display of flowers in the smaller squares, greens and play grounds of a city." Good, so far as it goes, and



JAMES O'BRIEN.

we may hope for tulips in spring and geraniums and coleuses in summer. But where are the colonies of snowdrops, grape hyacinths, daffodils and poet's narcissus spread out among the grass; the moss pinks and arabis and columbines among the rocks, the ferns in shady places, the lilies among the bushes, and the lotus and many colored nymphæas in the pond, the bold grasses, fiery tipped tritomas, gay cannas and brightly tinted garniture in its appropriate sphere? In the park.

And we hope and believe the day will soon come when every prominent city, will have its spacious greenhouse winter garden as well as its open air summer park.

WM. FALCONER.

High Colored Foliage.

When a paper (like Mr. McMillan's) sets everybody talking depend upon it there is something more than common hidden in it. As I said in the last issue of the FLORIST, "It is one of the very best papers if not the best paper ever read before the Society of American Florists." Yet there is something to be said contrary to Mr. McMillan's ideas and statements. It may be that Mr. McMillan is too Mayflower like for a great many of the people of to-day. Every city is not blessed with parks containing so much repose and so many natural advantages as the parks of Buffalo. This may be the

reason then why Mr. McMillan is satisfied without attempting anything conventional.

It is not every park that can afford to do without chromos to make it attractive to the masses, for be it remembered that people in the humbler walks of life can see as much beauty in an ordinary chromo as can those better educated in a Turner, a Millais or a Corot.

Condemnation of sports: Is there not beauty in a Concordia oak, a purple beech or the many forms of the Japanese maples?

Eccentricities: Does not Mr. McMillan think Mr. Hunnell's Italian garden beautiful? and that is eccentric.

Decorative effects: That public parks are made more effective by decoration with temporary plants (and many of these are foliage plants) must be admitted; there is a place for all such work and if there are not places there should be places made. I do not mean for puglist designs or for animate(?) subjects, unless perhaps they can be in motion; but surely there is beauty in well balanced, well colored and well selected groups, though they may be somewhat geometrical.

Foliage leads flowers: Yes, at this moment I have before me grand mounds of sumach, surpassing even Coleus Verschaffeltii in color, and the mounds are many of them very formal, a wood side covered with tulip trees of glorious yellow tints without jaundice, dogwoods equally, Perilla nankiensis in blackness, and maples of a dazzling scarlet, brighter than Joseph's coat, and these are all older than any foliage bedding plants.

In conclusion: That some needed reform in some of the foliage beds is necessary and important; that more variety in hardy perennials and more extensive plantings should be encouraged; that the education of all concerned is progressing in the right way, and that Mr. McMillan's paper has and will help along the good work can not be gainsaid.

JOHN THORPHE.

OBITUARY.

JAMES O'BRIEN, late treasurer of the Gardeners' and Florists' Club of Boston, died at his home in Jamaica Plain, Mass., September 25, at the age of 62 years.

Mr. O'Brien was born in Cork, Ireland. He came to this country in the year 1847 and soon found employment on the estate of Gen. Sumner at Jamaica Plain, where he remained some 20 years. On leaving the employ of Gen. Sumner he removed to his late residence on Union avenue and entered extensively into the raising of flowers. While devoting most of his time and attention to his local retail business, he has grown considerable quantities of flowers for the Boston trade. His great success with specialties such as primulas, cyclamens and cypripediums, shows him to have been a gardener of no mean order. His place was always kept neat and attractive.

That he was also a man of taste and refinement was shown by the many tasteful drawings and paintings, the work of his own hands, which he always took great pleasure in showing to visitors at his home. He had the honor of being known as "the father of the Gardeners' and Florists' Club," he having made the original motion which resulted in the formation of that organization. Although he belonged to other bodies this was his favorite, and up to the day of his death all through his long sickness, he never lost his deep interest in its welfare. A number of the members attended his funeral, including Jackson Dawson and A. P. Calder, who represented the club,

as pall bearers. He was also a member of the Society of American Florists and of the Mass. Hort. Society, and at one time served on the plant and flower committee of the latter organization.

As a gentleman and a friend Mr. O'Brien stood pre eminent. He was a man of kindly, sympathetic disposition and was sincerely respected by all who knew him, for his steadfast integrity and goodness of heart. He was a most worthy representative of the gardening fraternity and in his death we have lost not only a kind friend and neighbor, but a man who was an honor to the Florist trade of Boston.

W. J. S.



Pruning.

In reply to the question of carnation pruning that I advised in an article which appeared in April 15 issue, and which Mr. H. E. Chitty in his worthy article of the 1st inst, requires me to substantiate. I feel that I can do nothing better than to re advise the use of the knife during the early growth of the plants.

Mr. Chitty and myself are aiming for the same end, viz., a stocky well developed plant. When I begin using the knife the cuttings are too small to allow me to draw out the center shoot, I always cut off the tops before they are dibbled into the sand. This early trimming induces a growth of laterals and during the time the cuttings are in the sand (about three weeks) the many and desired side shoots are plainly in view. Those that are apt to run up really do look "rabbit eaten," but what of that, it is only a premature flower stem and will soon be completely lost in the center of the stocky growth coming up all around it.

It is a hard matter to name any certain date to discontinue pruning, as this season has proved beyond a question. "Michigan has been cutting up awful this year," as old farmer Sponable said to me the other day. "The season opened hot and dry, then changed to cold and dry, later wet and cold, and all the rest of the time it has been dry and cold." This year the last time I trimmed the tops of my carnations was April 15, from that time on until August it was interesting but discouraging to watch the slow growth the plants made. Had I continued my pruning this season as ordinarily I would have had no bloom until next March.

Regarding the time of lifting I think some good time in August suitable for this latitude. I notice that it is best to go over the plants, selecting those most forward first, and if there is any one stage of growth better than another for moving the plants, in my opinion it is when the terminal buds are almost developed.

THOMAS L. BROWN.

Grandville, Mich.

Callas and Pelargonium Cuttings.

Subscriber, Barrie, Ont., Canada, will find that his large plants of calla lilies will bloom during winter and keep on blooming up to July if he gives them ordinary good care and manure water two or three times a week after they get

pot bound, but if he, for some special purpose, wants a number of smaller plants in bloom in the month of May, I should advise him to buy a lot of medium sized dry bulbs, keep them in a dry, cool place until middle of February and then pot and start them in a temperature of 50° to 60°. They will push out leaves at once and after about two months flower buds will be produced freely. He will also notice that the buds on these newly started plants will open and expand faster than those on the older plants which were kept in growth all fall and winter.

As to his failure in striking pelargonium cuttings in the fall he will overcome that difficulty if he prunes in his stock plants rather severely after blooming and then sets them in a good greenhouse to make new growth. Protect them from the direct rays of the sun without actually keeping them too dark and water sparingly for a time until new growth is fairly out. Cuttings may be taken from these plants any time in summer, fall or winter and will root as freely as geraniums. The moisture in the house will produce a growth entirely different from out door wood and the cuttings made of this growth are almost sure to root if proper care be given them in the sand bed. They dislike shade and therefore very little of it should be given. As to his direct question, "When is the best time to strike the cuttings," I would say, that there is no fixed time, it all depends on the stage of growth the stock plants are in, whenever you can get half hardened cuttings two to three inches long put them in, it is the best time, but I should prefer the month of August.

Rochester, N. Y. J. B. KELLER.

Arboretum Notes.

VII.

As seasons generally run we do not look for blooming shrubs in October, hence when we take a ramble through the Arboretum collections it is with surprise and a convincing reminder of the many unusual features of the past season, when we find weigelas, spiræas and other spring-flowering shrubs in bloom on October 4. I saw *Rhododendron Dahuricum* in bloom, *Vinca minor* both blue and white varieties thickly dotted with flowers, also *Daphne alpina* and *cneorum* and *Spiræa Thunbergii*.

Spiræa Japonica var. *Bumalda*, is still blooming having been abundantly covered with its rosy pink corymbs continuously since July, and every young shoot now bearing buds which would extend the blooming period indefinitely if the frost would only stay away.

A number of andromedas are also opening their flowers and Mr. Dawson feels somewhat anxious about the effect on these plants should sudden cold weather find them in their present condition. There are a few scattering hypericums still in flower.

Stirking one side of the lawn at Mr. Dawson's house is a long bed devoted entirely to plants of the composite family. It contains ninety varieties of asters, solidagos, bolonias, etc., and up to within a few days has been a magnificent sight.

A singular appearing shrub, which, although a native of our eastern coast appears to be but little known, is *Baccharis halimifolia*. The male plant is of no value but the female is very showy when in bloom. The flowers are little woolly tufts somewhat resembling graphaliums and are borne in great profusion. The foliage is of a bright waxy green and the habit of the plant good.

By far the finest late autumn blooming shrub seen is *Caryopteris Mastacanthus*. This is a new plant, recently imported and is not yet proved as to hardiness. The flowers are light blue in color and borne in the axils of the leaves. If found to be hardy it will be one of the most valuable acquisitions of late years.

But it is on the fruit bearing shrubs and those with bright tinted autumn foliage that we must mainly rely for bright colors at this season of the year. *Clematis graveolens* looks like a bank of mist, so thickly is it covered with its feathery seed-pods. A fine *Celastrus scandens* trained over a post makes a superb show, with its pendent clusters of scarlet berries and bright orange capsules.

"The gem of fruiting shrubs": so says Mr. Dawson as he points out a superb specimen of *Berberis Thunbergii*, and he is pretty near right. It is hard to beat, and no shrubbery is complete without it.

Eunymus Europæus with bright scarlet fruit, and a white fruited variety are now at their best. *Ilex verticillata* is also seen in the showy coral berried variety, and a kind with yellow berries. A rare shrub from China is *Panax sessilifolium*. The black fruit is borne in round bunches at the tips of the branches.

Mr. Dawson recommends summer pruning for the Golden Elder (*Sambucus aurea*). The branches are cut back a short distance, thus developing a second growth of young shoots which fill in the plants with an abundance of young foliage and keeps it looking very bright and fresh into late fall. When seen from a distance a plant of this variety is the most striking object in the Arboretum nursery. Near to it is a *Cornus Siberica* from which the foliage has dropped. No other plant has such a glorious color on the stems as this *Cornus*. The bark is almost pure vermilion, and the effect as seen against the golden background of the *sambucus* is brilliant in the extreme.

The *sumachs*, *venenata*, *copallina*, *glabra*, *semialata*, *typhina*, etc., are now at their brightest and glow in the sunlight like flames of fire. Many of the maples and other trees are already beginning to turn yellow and drop their foliage, and the prospects for the annual gay display of rich autumn colors for which New England is so famous are not encouraging, a result attributed by Mr. Dawson to the excessive rains and dampness of the season through which we have been passing.

Boston, Oct. 7. WM. J. STEWART.

Rochester Notes.

BY WM. FALCONER.

Eulalia Japonica is used as a hedge plant by George Savage and with pleasing effect. It is planted along the street fence and the line bounding the property and though only a grass its bold contour and luxuriance of variegated foliage are quite striking in this position. Of course as a fence it would not be of any use.

Stephanotis in a cool house. Mr. Savage grows it in this way and very successfully. Under these conditions it makes excellent growth in summer, blooms well and is far less apt to be infested with mealy bugs—its inveterate enemy—than when grown in a hot greenhouse.

Imantophyllum. George Savage believes in them and grows lots of them for winter flowers. They are evergreen plants of the *amaryllis* order and natives of South Africa, but recently several fine garden forms have been obtained. The flowers are large, showy, flame or orange



IMANTOPHYLLUM

and yellow, and produced in umbels of 10 to 20 terminating stout scapes 15 to 30 inches long. By resting them now—keeping them rather cool and dry—they can be brought into good flowering condition any time in winter or spring with a little forcing.

Allamanda grandiflora is a Brazilian species and one of the finest of the genus. It may be successfully cultivated either as a pot plant or planted out in the greenhouse. George Savage prefers it planted out. But Thomas Baines, who a few years ago was the best plantsman in Europe, says it "is most suitable for growing as a pot specimen, in which way it may with advantage be trained to sticks, trellis being dispensed with." This is all right for Europe, but here we want freedom for our plants as for our people, and I believe with Mr. S. plant it out. The great advantage of *A. grandiflora* is its most free blooming nature. *Allamanda Schottii* is the species most commonly grown, and surely it is one of the grandest plants in the universe, magnificent in the greenhouse anywhere and in the open garden in Southern California.

Ophiopogon Jaburan (Snake's beard) is a little grass-like tufted plant that I saw a good deal of about the Rochester gardens. Besides the plain green-leaved form there is a variegated one, and both have an abundance of small bluish flowers, densely set in a raceme terminating a scape some 12 to 24 inches long; there is also a white flowered variety. It is not hardy, but will bear some 15° of frost with impunity. As it blooms in late summer it is appreciated in the flower garden in slightly shaded places; it makes pretty greenhouse or window plants and is a suitable companion for ferns. A native of N. E. Asia. Propagated by division.

The luxuriance of *Auemonia Japonica* at Rochester was a revelation. The big

clumps were very vigorous and displayed no signs of injury by winter. But what interested me most was the way in which young plants were coming up like weeds all over the ground occupied by other crops. No doubt the anemone was once grown in these grounds, and on being removed the pieces of broken off roots gave rise to the plants that now were so freely scattered about. The heavy and long-continued covering of snow protects the roots in winter and in this way renders this plant hardier there than on Long Island where it is not reliably hardy.

If hardy plants are doomed to destruction as some would have us believe, what a retrogressive race these Rochester florists must be, for every where we went—and we had a hurried run through several florists' places—hardy plants occupied a prominent place in their grounds. But these florists are all right. Hardy plants have never before been in such booming condition as they are now. Landscape gardeners are using them by the hundred thousand, and of several things the supply is not equal to the demand. If they hang upon a florist's hands it is because nobody knows he has got them, or he has an indifferent selection, or he has not got them in sufficient quantity to justify the landscape gardener in bothering with them. But, too, there is a growing retail demand for hardy plants. It is evident to every large plant florist around New York that the excessive use of bedding plants, conspicuous a few years ago, is being curtailed, and mixed gardening is becoming more and more fashionable. Take Newport, R. I., the most fashionable summer garden city in the country, as an example, and you will find that hardy trees, shrubs and perennials form a far larger bulk proportionately of the decorations of the gardens than they did a few years ago. And see how our florists are drifting. Take

Siebrecht & Wadley, of New York, for instance, with their enormous greenhouse establishment and collections of orchids and fine tropical plants, they are adding an extensive hardy plant department to their business. Do you think they would do this if they didn't smell a dollar in it? Not much. Now so long as we have homes and gardens so long shall we need bedding plants and enormous quantities of them, and at the same time so long shall we need hardy perennials and enormous quantities of them also. Then let us govern ourselves accordingly.

Andromeda Speciosa.

This is one of the most showy flowered of all the andromedas. The flowers are pure white in drooping racemes, the individual flowers often measuring one half an inch across. It is a native from North Carolina to the pine barrens of Florida and is usually found growing in low swampy ground. This handsome species was introduced into Europe about the year 1800, where ever since it has been much appreciated, and it is much more easy to find plants in European nurseries than in American ones.

This shrub is of slow growth, usually flowering at four years from seed. It requires careful handling during the first year, but after that it is comparatively easy to manage. As the fashion of forcing shrubs is growing this would be a plant which if once introduced would be much sought after. It flowers about the same time as *Deutzia gracilis*, and as all ericaceous plants lift easily when well grown it could be potted in late fall and kept in a cool pit until wanted. By having a supply it could be had in bloom from February till June.

JACKSON DAWSON.



Rochester Notes.

Apart from being one of the most complete and valuable collections in the country, the Kimball orchids are one of the best grown, and not only are they grown with a view to good looks as plants but also for flowers. When European nurserymen begin to attach the names of American cultivators to orchids of sterling merit, for instance *Vanda Kimballiana*, *Vanda Amesiana*, and *Cypripedium Morganianum* it means that these names are of much importance in the new world. Orchids that bloom in winter are more to be desired than those that bloom in summer when "nobody" is at home and we have lots of outdoor blossoms, hence an effort is made to retard the too early or hasten the too late to suit the winter season; but in so large a collection as Mr. Kimball's there are lots of orchids in bloom all the time, and not only one plant of a kind, but perhaps hundreds of a kind.

Laelia Dayana was in all its glory in little baskets and pans suspended near the glass. Some *Brassavolas* were in bloom and although not very showy are much liked among cut flowers. *Oncidium varicosum* and its variety *Rogersii*, both magnificent orchids had thrown up flower spikes as stout and long as stems of garden asparagus.

The lovely gilded butterflies of *O. Kramerianum* occurred most everywhere. Mr. S. says the secret of success in its cultivation is don't give it much water. *O. Forbesi* and *O. crispum* displayed the vast floral profusion of some orchids in comparison with the size of the plants.

Saccolabium Blumei was both striking and beautiful; its dense racemes of fragrant rose-tinted flowers hung down 17 inches long and several to each little basket.

The perfumed *Odontoglossum hastilabium* was in good bloom. And I noticed that all the plants of *O. citrosum* were grown in suspended pots or pans; this is to preserve the young flower spikes from the voracious slugs.

Many *cypripediums* were in bloom. One compartment was nearly filled with large plants of *C. insigne* (not in bloom, of course) which Mr. S. called my attention to to show that cool, airy treatment in summer is better for them than warm, close quarters; they may not make such rank foliage but they will out-blossom any coddled plants.

The pretty little *Laelia monophylla* was in bloom, so too were *Phalenopsis Esmeralda*, *Epidendrum vitellinum majus*, *Maxillaria grandiflora* and *venusta*, and some others.

Some *renantheras* interested me much, for unlike as we usually see them they were strong and vigorous and had been in grand bloom shortly before I saw them, the long and branched spikes and faded blossoms attested this fact. They included *R. mutata*, *R. histrionica* and *R. Storiei*.

Bulbophyllum Lindleyanum and its varieties *album* and *roseum* were the liliuputians among the orchids; their pseudobulbs were about the size of peas and their leaves about an inch long.

Among *Utricularias*, which are bladderworts, besides *montana* and *Eudresii*,

Mr. Kimball has several other tropical species, conspicuous among them being a gigantic one from Brazil and called *U. reniformis*.

Mr. Savage likes small glass houses for growing orchids in very much better than large ones. Cockroaches trouble him as they do the rest of us. As traps for them he uses wide-mouthed, transparent, glass bottles, about one-fourth filled with sweetened water; the cockroaches in attempting to get at the sweets fall in and as they cannot climb out again, get drowned. And Mr. S. assures me that in bottles in which one or two roaches are already drowned he can catch more than in those from which the dead roaches have all been removed. The presence of one or two of their kind already floating in the liquid instills confidence into the others to come in too. W. F.

Hail Storm at Philadelphia.

A severe hail storm struck this city on Tuesday October 1, shortly after 5 p. m. It was accompanied by sharp claps of thunder and the most vivid lightning that I ever recollect. It is unusual to have hail storms at this season of the year.

The damage done can hardly be estimated, and especially is this so just now, when everything should be snug and tight ready for winter. It extended about six miles square. On the west from 60th street to 10th street on the east, and from Susquehanna avenue on the north to Baltimore avenue on the south.

So far as can be ascertained the following are among the heaviest losers: Craig & Bro. about 7,000 square feet; August Lutz and David Bearn one fifth of their glass; Jacob Becker one eighth; D. D. L. Farson one sixth; James Shelly light; Frederick R. Krebs very heavy; Henry Engler two new houses recently finished completely wrecked, in addition to his other houses; Julius Wolff, Sr., only 10 square feet, whereas Edward Bayard not far away lost very heavily; W. F. Fancourt, Philip Alburger and the Fergusson Bros., near neighbors to the two last named, did not lose a pane; James Kent and George W. Carpenter were badly damaged; James Cole about one eighth of his glass; Clarence Dunn and William Sutherland were both hit hard.

The storm seemed heaviest in the neighborhood of 22nd and Diamond Sts. Habermehl Bros. lost quite three fourths of their glass; Charles Fox and Joseph McMurray lost some, and A. Blanc's cactus houses were slightly damaged; Supplee & Brown and William Scott & Son are among the unfortunates.

The storm which equaled this one in severity and the area covered happened May 1 (Sunday), 1870, and two years later a heavy one struck here, and not more than two years ago Dennison Bros and Faust & Bro. were damaged by hail to a great extent. In 1870 the Darby Road florists caught it very bad, but on this occasion we are glad to record they were not touched nor were the last two firms named.

Robert Craig says that on their place the double thick glass was not broken nearly so bad as the single thick. Wm. K. Harris says that he would not use single thick glass for glazing greenhouses if he could get it for nothing.

Dan Farson says he "thought he was outside the hail belt, but he was belted by the hail like hail." Some of the florists were insured in "The Florists' Hail Association of America," but the majority of them were not.

Some glass was broken in the green-

houses in Fairmount Park, and the houses in the Girard College grounds were sadly damaged.

One redeeming feature in this unfortunate matter was that very few plants were injured. EDWIN LONSDALE.

Boston.

The frost has kept away from us most persistently thus far, a most gratifying condition of things to those who possess or who admire outdoor floral decorations, but not so pleasing to those who depend upon the sale of flowers for their living.

Much as the latter may admire verdure clad shrubberies and gardens gay with *salvias*, *geraniums* and *cannas*, yet they can not keep down the longing for the withering frosts and cheerless cloudy days which bring life to the flower market and put prices somewhere near a living figure. As it is the rose market is in a deplorable state, with slim prospects of immediate improvement. All the standard kinds are abundant, good and cheap. Outside of roses there is nothing extra choice with the exception of lily of the valley. There is a fair supply of carnations and asters, the white varieties being the only kind salable however. Tuberoses, *mignonette*, *candytuft*, with a few violets and *callas* are about all there is besides. A few straggling *chrysanthemums* are seen. They are of finest quality and bring almost orchid prices. *Adiantums* and *smilax* are in good supply.

The monthly meeting of the Gardeners' and Florists' Club on October 1 was well attended and was a most interesting occasion. The subject of "bulbs" was discussed, particular attention being paid to *freesias* and *aucumenes*. The drift of the *freesia* discussion indicated that the average market price of this favorite had got about as low as any one can afford to grow it. Regarding *aucumenes* it seems that there is a possible future for them, but care is required in handling the bulbs, especially in the matter of keeping them dry or nearly so from the time they are planted until they begin to grow. *Dahlias* were also discussed and a very handsome vase of the blooms was shown by Mr. John Parker.

Mr. C. M. Atkinson exhibited at Horticultural Hall on October 5, a nice plant of *Vanda Kimballiana* with a fine spike of flowers on it. It was specially interesting from the fact that this was the first time any one has succeeded in blooming it in this country. It was awarded a silver medal.

The annual election of officers in the Mass. Hort. Society was held on Saturday October 5, and resulted in the choice by a large majority of Wm. H. Spooner for president, and Patrick Norton as chairman of the committee of arrangements. These were the two principal offices over which there was any contest. The opposition took advantage of the apparent loyalty of the gardeners and florists to the regular nominations to cast discredit upon their motives and to create an unjust prejudice against this element in the society. This fact, together with the adoption by the opposition of certain other tactics which were generally disapproved resulted in an enthusiastic rally to the support of the regular ticket which was elected by an overwhelming majority. It would certainly be most discouraging were this society to admit the plea that with a record of over half a century it had failed to develop a floricultural constituency within its membership worthy to be entrusted with a fair share of its responsibilities and an equitable representation in its councils, and it is to the

lasting credit of the Mass. Hort. Society that this epoch has been so thoroughly buried that it will doubtless be a long time before any self constituted saviors of the society will again have the temerity to resurrect it.

Strange as it may seem there are still a few individuals left who would insist that the officers of a horticultural society should be anything under the sun except practical horticulturists, and who resent as an unpardonable sin any claims to social equality on the part of "gardeners." We read in English magazines of under-gardeners, so called, who do not dare to sign their names when contributing to the horticultural periodicals lest they may lose their situations in consequence of their ambition. Fortunately the atmosphere in this part of the world is not favorable to the propagation of that species of vegetation, and it is most gratifying to be able to record that in this year, A. D. 1889, the strongest and most honored horticultural society in the world has stood up to be counted, four to one, on the right side. WM. J. STEWART.

Philadelphia.

At the last meeting of the Florists' Club the annual election of officers resulted as follows: President, Robert Craig; Vice-President, C. D. Ball; Treasurer, Thomas Cartledge, Secretary, Henry F. Mitchell.

The Treasurer's report showed a balance on hand of over \$1,000. The idea of buying a club house, to be kept open at all times for the benefit and convenience of the members, is still talked about, but nothing definite has been decided upon.

A paper was read by John Burton on "The advantages of steam over hot water and hot water under pressure for heating greenhouses," which was by motion ordered to be forwarded to the FLORIST for publication.

Trade is improving and the outlook is promising for a good season next winter. E. L.

Wind-Tight Ventilator.

The accompanying sketch gives a sectional view of a wind-tight ventilator designed and used by Mr. J. T. Anthony, a Chicago florist. The opening in the roof is eased clear around inside with a strip which projects about an inch above the surface of the roof and the weather strip on the outside is carried around three sides of the ventilator sash. The joints on the outside should be well filled with paint.

This adds but a trifle to the first cost of the ventilators and excludes much cold air that would otherwise drive in when a cold wind is blowing, and renders the sash less liable to be lifted by the wind. Mr. Anthony has found them so satisfactory after a year's trial that he is arranging all his ventilators in this way.

Leaves of Advice From a Limb of the Law.

(For Young Florists.)

IX.

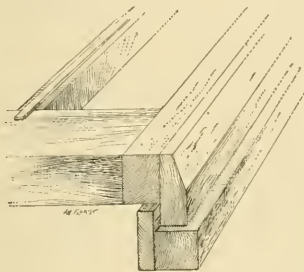
You say you have struck it rich this morning, hey? Good, I'm glad to hear it; you work hard, are temperate and economical and you deserve to make a hit now and then.

Let's hear what you call striking it rich. Sold a bill of \$100 to Contractor Grubbs have you? ornamental shrubs for the lawns of three new places he is building. That sounds well. But look

out for Grubbs. Grubbs is a hustler, but he is not a safe business man. He is keen at a bargain and somewhat unscrupulous as to methods.

Oh, ho! So in return for this order you are to go on his bond as the builder of the new bridge. Don't do it. The fifty dollars which you make on this order for the shrubs may be the hardest earned since you started in business for yourself.

I don't say that a business man should never go on a bond for a friend, for some one must do that sort of thing; but I do say: "Don't go on Grubbs' bond." No matter, that doesn't change the fact of your liability for the whole amount. The other bondsmen may die insolvent, where are you then?



WIND-TIGHT VENTILATOR.

The contract of principal and surety is a peculiar one. Let us look into it for a moment. The law does not allow you to attach any conditions to your guaranty that another shall or shall not do or leave undone a certain thing. Your guaranty must be absolute; it must be in writing, the thing to be done must be a legal act, and there must be a consideration accruing to your principal; that is, no man can guaranty the payment of a debt already due and owing. You understand that the very instant you sign as surety for another you put a lien on all your property.

True, many persons when they find that their principal has defaulted, or is likely to default, put their property out of their hands and whip the devil around the stump by doing business as "agent" or "manager." This is wretched business for a man who expects to make a name as a successful merchant or trader.

There is some consolation for a man who guarantees or goes surety for another and it is this: The contract or agreement must be most strictly construed. I'll explain. Suppose you guarantee the payment of a note and when it falls due the payee extends it. This would release you. In fact, any change in that note, rate of interest or time or place of payment would free you from your contract to make it good.

But suppose you go surety for my rent, the mere fact that the landlord accepts fifty cents on the dollar for one or more quarters will not release you for the balance of the term. But if the landlord in any way changed the amount of rent, time of payment, etc., you would be released from all liability as surety.

You say you hold a written guaranty in the form of a letter from a certain rich man in this town promising to be responsible for all bills of cut flowers which

you may be called upon to deliver to the lady managers of the coming church fair. It is not a good guaranty. It omits one of the essential points for it fails to state what sum such guaranty shall cover. Have it reformed at once by getting the maker to insert some fixed sum.

So too, you must take care that an agreement to make good, states specifically the time which it is to run. No guaranty can run indefinitely.

Now we are getting a pretty distinct idea of what a man must do in order to be held responsible for the action or default of another. He must specify what he is to be responsible for, the time how long and the sum how much. Then he must sign the agreement at the end thereof.

Bonds are usually executed under seal with witnesses. But the ordinary contracts to be responsible for another do not need these formalities. But there must be some sort of writing in ink or pencil; a mere verbal promise is worthless, absolutely so.

Now you ask what your liability would be in case you went on Grubbs' bond and the town should get a judgment against him. Bondsmen are liable "jointly and severally," that is for the whole, or if three contribute for a third. The law holds fast to each bondsman and says: "I may let you off with one third, but if the two others don't pay then you must pay all."

Yes, you are right. If a surety, bondsman or guarantor pays the debt he then has a claim for the amount against his principal. But if you find it necessary to become surety for another, make a "mem" of the date when the obligation falls due, hunt up the creditor and demand that he at once begin a suit against your principal for the amount. This is very important. For it may be that your man had money at that time and that he was one of those chaps who never pay unless the screws are tightened. In this case, upon the neglect of the creditor to sue for his demand, you would be exonerated from your guaranty.

No, it is not necessary that a guaranty should be addressed to any particular person. If you write the words: "I hereby guaranty the payment of within rent," and sign your name, that guaranty would be good even if the landlord should sell the house and your man become the tenant of some one else. The law says, quite correctly, that it makes no difference to you into whose hands the rent may be paid. You are helping out your friend, that is, you are enabling him to gain some advantage, draw some profit and this is (mark well) the consideration which moves you to put your name down as surety.

So, as I said before, the law doesn't permit you to guaranty a "dead horse." By that I mean that if you owe fifty dollars to Tom, Dick or Harry for goods had and received the law will not permit me to guaranty the payment of that old debt unless some new promise is coupled with it. For instance, suppose your creditor says to me: "If you will guaranty the payment of that old account I'll reduce the amount to forty dollars." Here the guaranty would stand, for a new consideration arises.

Good. I'm glad you asked that question. Yes, strange though it may appear, if you guaranty the contract of a minor you must pay. Bear this in mind, for young men are very fond of flowers and some "smart Aleck" might think he was not incurring any liability to go security for a boy. UNCLE BLACKSTONE.

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Advertisements for November 1 issue must REACH US by noon, Oct. 26. Address

THE AMERICAN FLORIST CO., Chicago.

HIGH COLORS IN GARDENING.

At what point shall we find a resting place in following the logic hidden in the able and smoothly written paper of Superintendent McMillan? We trust we do him no injustice in stating that he inveighs against all carpet bedding, all foliage plants except with green leaves (barring sub-tropical) and all flower beds where masses of very bright flowers are shown. Truly such a critic leaves the greenhouse plantsman a narrow spot to turn upon.

Mr. McMillan is undoubtedly a rare lover of "nature unadorned." No narrow street lines hem his landscape, no 6x9 or 3x25 door yard should enclose his daily walk. With what unrest would he view the interminable lines of brick and stone of Fifth Avenue, New York, or Michigan Avenue, Chicago, and where, if he was brought to live on such avenues, would he find the room for those beds of old garden flowers or those massive sub-tropical effects which he does permit in those colors? Surely Mr. McMillan's Utopia is

"Where wild in the woodlands the primroses blow."

For the new and crowded city streets leave little room for his ideal in flower gardening. Granted that the widespread lawn, the hedge rows, the fragrant garden flowers, the herbaceous borders, are high types of horticultural taste in these directions, yet where is today the space for their adoption in thousands of city homes?

The city residences stand not amid green foliage on an extended lawn, but beneath high walls of similar brick and stone structures on every hand and little of nature visible except the sky above or that part of it which ends in long street vista.

This very condition so wholly artificial, justifies a miniature, an artificial and a brilliant effect on the small spot of garden which shall stand for the great expanse in the country villa of Mr. McMillan's taste. It is artificial, but it is not necessarily inharmonious, be it as bright and as much of a carpet bed as it may. Neither will we admit that colored foliage of any kind is necessarily in poor taste. Yellow coleus, bronze cannas, purple alternantheras can no more be said to be plants only for morbid admirations than can the close cropped green lawn during the autumn days, for why not follow out the logic and let the grass grow, blossom and turn brown as fits the season and the "turf beneath our feet" touch us with that sweet sadness that autumn always brings as she steals on and hints the end of the summer life of all vegetation. Why force her into perennial spring and unseasonable green with the noisy barbaric lawn mower and the snake like hose? We will admire nature with you, for she is truly lovely in

all her moods. We will not love the artificial as we love the other, but we must admit its embellishments.

But what of the intricate and barbaric figures in designs in our parks? We do not defend them, nor do we say they should not be. Give us variety if variety is necessary to please and attract the public with it; let also the tasteful and the artistic make their appeal to the human heart and the favorite and fittest shall survive. But surely it is not the first thing to attract the attendance of your citizens to the park and is it wrong to do that by the great human cord of curiosity, if they have not the true delight in nature they should have?

Will Mr. McMillan kindly suggest the remedy or the substitute for the bright colors or the carpet bedding which form to-day nine tenths of the bedding work of the average florist in the small gardens of our cities and towns. He who tears down should certainly furnish some material to build with.

The dried immortelle, emblem of immortality is dear to the French, and in its natural color (yellow) has adorned their graves for hundreds of years. The dyed purple of the same is used in America, purple seeming to us a more appropriate color. Here the immortelle still typifies the immortality if you only think so, yet Mr. M. says the purple immortelle is ridiculous. What then of the yellow? Has the nation which stands at the head in art been mad for a century with the yellow wreaths on the tombs of its Voltaire or Hugo?

A REICHENBACH INJUSTICE.—A. B. was a very successful botanical collector and discovered several new orchids in the East Indies and Indian Archipelago. Some of these were imported alive into Europe and are now in general cultivation, and the discoverer has received due credit for them. But he discovered several species, if not some genera, new to science, and of which he was able only to secure herbarium specimens. On returning to Europe he sent these together with complete information about and drawings of them to Reichenbach, but he has never heard anything further from them, and now they are locked up in the Reichenbach herbarium to remain there sealed from the world for the next twenty-five years! In the meantime it is quite probable that C. D., E. F., and others may rediscover these new plants in their native wilds and secure living or herbarium specimens of them, and submit them to the authorities at Kew for identification or name, and have the credit of being the original discoverers. This is very galling and ill requites the dangers, privations and sickness A. B. underwent, his enthusiasm in the field and his passionate love for orchids. But it is a stinging lesson—it teaches us how unsafe it is to trust our eggs in any one man's private basket. Had Kew or some other noble, liberal, public institution of the kind been entrusted with the identification and classification of orchids no such injustice as that done to A. B. could possibly have been done.

SEEDLING CARNATION.—A carnation bloom, delicate pink in color, of large size, with perfect calyx and on a long, strong stem has been received from W. Bertermann of Indianapolis, who states that it is a seedling raised by Fred. Dörner, La Fayette, Ind. The bloom is certainly handsome, but we fear that the color is not positive enough to make it a seller as a cut flower. We understand

that Mr. Dörner has been quite successful in crossing the carnation and has a number of other promising seedlings. It is gratifying to know that more American growers are devoting attention to hybridizing and crossing.

THE BOUNDARY LINES of the "Hail Belt" are still far from being accurately determined. Philadelphia's recent unfortunate experience certainly proves beyond question that the eastern "boundary" is not west of the Alleghenies, and that coast cities are no more certain of exemption from hail storms than others. It is a curious fact that on two different occasions and in two different cities a florist who did not have his glass insured had it broken by hail while his neighbor who carried insurance escaped. The Florists' Hail Association seems to be a very effective "mascot."

CONVENTION PHOTOGRAPH.—A copy of the photograph taken at the hall park at Buffalo during the convention has been received from E. F. Hall & Co. the photographers, 306 Main street, Buffalo. Evidently the entire convention did not attend the ball game as the crowd is not as large as usual. The faces in front are quite distinct and readily recognized but those further back in the shade of the grand stand are very indistinct. It was a mistake attempting to take a photograph in that position. All should have been out in the full light. This should be borne in mind at future conventions.

VARIEGATED BANANA.—Messrs. G. R. Clark & Co., Scranton, Pa., send us a leaf of Musa ensete which is distinctly and strikingly variegated. The plant was one of a lot of seedlings raised this spring. They state that it has made a splendid growth this summer, but not so strong as the plain green form. They would like to know if any reader of the FLORIST has before seen or heard of a variegated Musa ensete.

FROST did considerable damage in the gardens of England, France and Belgium September 15 to 17. At Ghent in Belgium and Ussy in France the most serious damage was done, in the former ruining the bulk of the azaleas which were ready for market. The exportations of this plant will be very largely curtailed in consequence and prices will undoubtedly rule considerably higher.

CHRYSANTHEMUM PRIZE.—We are requested to state that the prize offered by Mrs. Benj. Harrison at the Indianapolis show is for the best six blooms of any seedling of American origin.

Catalogues Received.

Wm. Parry, Parry, N. J., nursery stock; Reading Nurseries, Reading, Mass. hardy plants; N. F. McCarthy & Co., Boston, auction plants; C. H. Murphy, Urbana, O., plants; Soupet & Notting, Luxemburg, Europe, new roses; C. E. Allen, Brattleboro, Vt., bulbs and plants; Dammann & Co., San Giovanni a Teduccio, Italy, seeds and plants; Herbert A. Jones, Himrods, N. Y., nursery stock; Nanz & Neuner, Louisville, Ky., bulbs and plants; W. H. Cassell, Canton, Miss., nursery stock; The Riley, Osborn Mfg. Co., Newark, N. J., metal jardinières, etc.; Fred W. Kelsey, New York, specialties in nursery stock; John Saul, Washington, D. C., nursery stock and plants; E. B. Jennings, Southport, Conn., plants; Chas. Eble, New Orleans, plants; Michel Plant and Seed Co., St. Louis, plants, bulbs and seeds; A. T. Merrick, Chicago, engravings for florists.

Coming Exhibitions.

November 5-8, Chicago.—Chrysanthemum Show Chicago Florist Club.

November 5-9, Indianapolis.—Chrysanthemum Show Society of Indiana Florists.

November 5-8, Montreal.—Chrysanthemum Show Montreal Florists' and Gardeners' Club.

November 6-8, New Haven, Conn.—Annual exhibition of the Chrysanthemum Club.

November 11-15, Detroit.—Chrysanthemum Show Detroit Florists.

November 12-16, Philadelphia.—Chrysanthemum Show Pennsylvania Hort. Society.

November 12-14, Boston.—Chrysanthemum Show Mass. Hort. Society.

November 12-14, Orange, N.J.—Chrysanthemum Show New Jersey Floricultural Society.

November 12-16, Cincinnati.—Chrysanthemum Show Cincinnati Florist Club.

November 13-14, Worcester, Mass.—Chrysanthemum Show Worcester County Hort. Society.

November 14-16, Springfield, Mass.—Chrysanthemum Show Hampden County Hort. Society.

THOS. YOUNG, JR., WHOLESALE FLORIST

20 West 24th Street,
NEW YORK.

LILY OF THE VALLEY
And the Choicest ROSES for the
fall and winter season.

W. S. ALLEN, WHOLESALE DEALER IN CUT FLOWERS,

36 EAST 23rd STREET, NEW YORK.
ESTABLISHED 1877.
Price List sent upon application.

W. F. SHERIDAN, Wholesale and Commission Dealer in CUT FLOWERS,

NO. 50 W. 30TH ST., NEW YORK.
Orders to be shipped will receive prompt attention.

EDWARD C. HORAN, WHOLESALE FLORIST,

36 WEST 29TH STREET,
The Bride, Mermet,
and Am. Beauties,
SPECIALTIES. NEW YORK.

ROSS & MILLANG, WHOLESALE FLORISTS,

No. 1168 Broadway,
Bet. 27th & 28th Sts., NEW YORK

HAMMOND & HUNTER, Wholesale dealers in Cut Flowers and Florists' Supplies

61 West 30th Street, NEW YORK.

Wholesale Market.

Cut Flowers.

Roses, Teas.....	BOSTON, Oct. 9.	\$1.00 @ \$1.50
Valley.....	Fancy.....	3.00 @ 5.00
Asters.....	.....	1.50
Carnations, short.....	.....	.75
Carnations, long.....	.....	1.00
Mignonette.....	.....	1.00
Violets.....	.....	.75
Adiantums.....	.....	1.00
Roses, Bon Silene.....	NEW YORK, Oct. 9.	2.00
Gontiers, Souva.....	.....	2.00
Perles, Niphetos.....	.....	2.00 @ 4.00
Mermets, Brides.....	.....	3.00 @ 5.00
Casins, Watteville.....	.....	4.00 @ 5.00
La France.....	.....	4.00 @ 6.00
Bennetts, Dukes.....	.....	4.00
Dukes.....	.....	6.00
M. de Vivien.....	.....	3.00
Sour, de Vontons.....	.....	5.00
Capucines.....	.....	3.00 @ 4.00
Am. Beauty.....	.....	5.00 @ 25.00
Duchess of Albany.....	.....	15.00 @ 20.00
Smilax.....	.....	12.00 @ 15.00
Carnations, fancy, long.....	.....	1.50
Lily of the valley.....	.....	1.00
Violets.....	.....	.50 @ 1.00
Adiantums.....	.....	1.00
Roses, Perles, Niphetos.....	PHILADELPHIA, Oct. 9.	\$2.00 @ \$3.00
Mermets, Bennetts.....	.....	3.00
La France, Brides.....	.....	3.00
Am. Beauties.....	.....	10.00 @ 12.00
Gontiers.....	.....	1.50
Carnations, long.....	.....	1.00
Carnations, short.....	.....	.50 @ .75
Single violets.....	.....	.20
Boyardia, heliotrope.....	.....	1.00
Duchess, long, Jasmine sprays.....	.....	1.00
Smilax.....	.....	15.00
Adiantums.....	.....	1.00
Roses, Perles, Niphetos.....	CHICAGO, Oct. 11.	\$3.00 @ \$4.00
Mermets.....	.....	4.00 @ 6.00
Brides.....	.....	5.00 @ 7.00
La France.....	.....	5.00 @ 6.00
Bennetts, Dukes.....	.....	5.00
Bon Silenes.....	.....	2.00
Am. Beauties.....	.....	10.00 @ 15.00
Carnations, short.....	.....	.75 @ 1.00
Carnations, long.....	.....	1.25
Carnations, fancy.....	.....	2.00 @ 3.00
Smilax.....	.....	18.00 @ 20.00
Calles.....	.....	15.00
Adiantums.....	.....	1.00 @ 1.25

WM. J. STEWART, Cut Flowers & Florists' Supplies

— WHOLESALE —

67 BROMFIELD ST., BOSTON, MASS.
Mention American Florist.

GEO. MULLEN, WHOLESALE FLORIST.

Florists' Supplies Always in Stock.
17 CHAPMAN PLACE,
(Off School St., near Parker House).
BOSTON, MASS.
Orders by Mail, Telegraph, Telephone or Express
promptly filled.

WELCH BROS., WHOLESALE FLORISTS.

155 Tremont Street, BOSTON, MASS.
We make a specialty of shipping choice Roses and
other Flowers, carefully packed, to all points in
Western and Middle States.
Return Telegram is sent immediately when it
is impossible to fill your order.

C. STRAUSS & CO., WASHINGTON, D. C.

Roses planted for Winter 1889-90.
20,000 WOOTTON, 2,000 MME. WATTEVILLE
15,000 PERLES, 2,000 MME. CUSIN,
10,000 LA FRANCE, 1,000 LUCIOLE,
3,000 AM. BEAUTY, 6,000 BRIDES,
2,000 PUSTAN, 2,000 MERMETS,
2,000 MME. HOSTE, 2,500 GONTIERS.

CUT FLOWERS

The choicest Cut Flowers at lowest market rates
shipped C. O. D. Telephone connection. Use A.
Code when ordering by telegraph. For prices, etc.,
Address,
A. L. DILLON, BLOOMSBURG, PA.
CUT FLOWERS AT WHOLESALE.
Consignments Solicited.
Single Primrose plants for sale, etc.
THE WISCONSIN FLOWER EXCHANGE,
133 Mason Street, MILWAUKEE, WIS.

VAUGHAN'S CUT FLOWER DEPT.

88 State St., - CHICAGO.

Receives Fresh Flowers morning and evening
DAILY.

Send your orders to the above address, where they
will be attended to properly.

REMEMBER.—When any one in Chicago has
Flowers to sell, VAUGHAN has also.

WRITE FOR QUOTATIONS.

KENNICOTT BROS., WHOLESALE FLORISTS,

27 Washington Street, CHICAGO.

We always have choice, Fresh Cut Flowers in season.
The best packers in the trade. Orders promptly
shipped. Store open until 9 P. M. Sundays until 2 P. M.

WIRE WORK A SPECIALTY.
Extra designs made to order. Write for price list.
Consignments Solicited, Telephone 406.

CHAS. H. FISK, Wholesale Florist

AND DEALER IN
FLORISTS' SUPPLIES,
116 Dearborn Street,
CHICAGO,

Store Open Day and Night.

I keep a full stock of
WIRE DESIGNS
of superior workmanship and at lowest prices. Extra
pieces of any description made to order on short-
est notice. Send for Catalogue.

A. S. KIMBALL, WHOLESALE CUT FLOWERS,

170 Lake Street, CHICAGO.
SHIPPING MY SPECIALTY.
CONSIGNMENTS SOLICITED.

LaRoche & Stahl, Florists & Commission Merchants

—OF—
CUT FLOWERS.
1237 Chestnut Street, - PHILADELPHIA.
Consignments Solicited. Special attention paid to
shipping. Mention AMERICAN FLORIST.

CHAS. E. PENNOCK, WHOLESALE FLORIST

38 So. 16th Street, Philadelphia, Pa.

JOHN M. HUDSON, WHOLESALE

Commission Dealer in Cut Flowers,
1225 Market St., ST. LOUIS, MO.

SMILAX ONLY. WHOLESALE AND RETAIL AT ALL SEASONS. F. E. FASSETT & BRO., Ashtabula, O.

On Seed Trade.

SEED TRADE ASSOCIATION.

H. W. JOHNSON, Philadelphia, president; ALBERT M. MCCULLOUGH, Cincinnati, secretary and treasurer. The eighth annual meeting at Saratoga Springs, N. Y., June, 1899.

RED ONION SEED is said to be less than a usual crop.

TIMOTHY SEED at \$1 per bushel in some parts of Iowa.

MR. WM. MEGGAT will make a western trip the end of this month.

ONE KANSAS FIRM is said to have 50,000 pounds of sunflower seed.

PEA AND BEAN growers insist that the crop is not equal to the average demand.

MR. HENRI MARTIN, with Vilmorin Audrieux & Co., and Mr. C. E. Osman, of London, have just made a trip through the States.

NORTHUP, BRASLAN & GOODWIN Co. at Minneapolis, have re-arranged their establishment, providing a much larger retail salesroom and handsome first floor offices with plate glass windows and electric light.

New Notes.

WOONSOCKET, R. I.—E. A. Chipman has made an assignment.

NASHVILLE, TENN.—J. C. Walker has retired from the florist business.

DETROIT, MICH.—A receiver has been appointed for Stayner & Kerr, florists.

FORT SCOTT, KAN.—Alma S. Patterson has completed a new rose house 12x48.

CLEVELAND.—A. Graham has built two new houses, one 100x24 and one 100x11.

CINCINNATI.—Frank Huntsman has been very ill, but is now on the road to recovery.

ST. LOUIS.—Fred. C. Weber has built a conservatory in connection with his new store at 3134 Olive street.

OMAHA, NEB.—E. C. Erffing has retired from the florist business. He is succeeded by A. Hooze, formerly of Hooze & Jensen.

EVERGREEN, ALA.—There will be a conservatory 18x40 in connection with the Evergreen Hotel, now being built here.

DETROIT.—The florists of the city have decided to give a chrysanthemum show at the Detroit rink November 11 to 19 next.

RICHMOND, IND.—Beach & Co. are building three new houses 75x12 and arranging to heat their place with steam. Hill & Co. are building two large houses.

PITTSBURG.—A "Century Plant" is in bloom at the conservatories of Mr. Wm. Darlington. The flower stalk is 29 feet in height and bears 1,551 flowers and buds.

MALDEN, MASS.—E. D. Kaulback is building two new houses 100x20 and putting in a 40-horse power boiler, intending to heat his plant of six houses by steam.

KANSAS CITY.—N. S. Griffith, the Independence florist, has opened a cut flower store at 1022 Main street, this city. He will conduct both a retail and wholesale trade.

MILWAUKEE.—A Klokner & Co. have opened a floral establishment at 215 Second street, and F. Schmeling one at 90 Wisconsin street and another on Reed street.

RIDGEWOOD, N. J.—Henry Hales is rebuilding his greenhouses and putting in a locomotive boiler for heating. Andrew V. D. Snyder is building a new greenhouse 80x16.

COLUMBUS, O.—The ladies' committee of the Old Ladies' Home will give a chrysanthemum display in the old Board of Trade room, City Hall, the first week in November. The Franklin Floral Co. will supply the plants.

SPRINGFIELD, MO.—C. Draper & Son have succeeded S. H. Horine as proprietor of the Springfield Floral and Seed Co. They will enlarge the greenhouses. Cut flower trade here is improving year after year, but prices are low.

WESTERVLY, R. I.—S. J. Reuter is building a propagating house 100x90. He has taken out five cast iron steam boilers and replaced them with one 50-horse power horizontal tubular boiler, and intends to put in another of same size.

KANSAS CITY.—Articles of incorporation of the Probst Brothers Floral Co. have been filed in the recorder's office. The capital stock is \$40,000. The incorporators are Herman Probst, Gustav Probst, Thomas J. Conn, Samuel Murray, Joseph Haefner and Henry Mills.

LAKE GENEVA, WIS.—The Button Bros. in the trade here are probably the most youthful florists doing business on their own account. They started into business three years ago at the ages of 18 and 16 years respectively. They are doing a fair business which is increasing annually.

INDIANAPOLIS.—There was an excellent display of plants and flowers at the Indiana State Fair. Chas. Riemann received first premiums for new show design and for ferns, caladiums, etc.; Bertermann Bros. for funeral design, basket, bouquet, cut flowers and general display of plants; Mrs. H. Hilker for cut gladioluses and roses; Jens Larsen for handle basket.

LA CROSSE, WIS.—Henry Kienahs & Son are building a large rose house and making other extensive improvements. Aug. Rimmer contemplates building two houses 150 feet long to be devoted to the growing of bedding plants. The cemetery association have made some improvements in their greenhouses. Their stock of roses for cut flowers is one of the largest, healthiest and finest that was ever grown in La Crosse greenhouses.

DETROIT.—The exposition was a great success in every way. The plums, late pears, apples and peaches were very fine; early fruit was past its best, grapes were poor. Cut flowers were scarce owing to the unfavorable season. Vick of Rochester, made a fine exhibit of gladioli, dahlias, asters, zinnias, etc.; plants in bloom were scarce; palms, ferns, etc. were well represented; S. Taplin carried off the bulk of the premiums in the latter class.

PITTSBURG.—Cut flower business was light through September. October opens up well with several weddings in the first half of it, and prospects for the winter are good. As usual at this season of the year good flowers are scarce now; no violets, no lilies, and not many carnations. A very large number of elaborate floral tributes were used at the funeral of Capt. W. R. Jones, manager of the Edgar

Thompson Steel Works, October 3. Several very handsome original designs were arranged by Jno. R. & A. Murdoch.

LANSING, MICH.—The 41st annual State Fair closed September 13, after five days of success. Mr. Knapper, gardener at the Agricultural College, made a fine display of palms and stove plants; his seedling coleus were especially fine and were the admiration of all. R. Mann & Son made a large display of plants and cut flowers, taking nine first and one second premium. Mrs. Sarah Smith, of Grand Rapids, made a good display of cut flowers, but came too late to compete for premiums. H. F. Dew has rebuilt his greenhouse and will put in steam.

WILMINGTON, DEL.—At the Wilmington fair, in the cut flower class J. L. Brown & Co. received seven first premiums and three seconds; M. F. Hayden four firsts and three seconds; Geo. W. Brown & Son one first; J. N. Lewis & Bro. one second; G. W. Brinton & Son three firsts and one second. In plants G. W. Brinton & Son received seven firsts and two seconds; J. L. Brown & Co. nine firsts and five seconds; M. F. Hayden five firsts; J. N. Lewis & Bro. three firsts and seven seconds; L. E. Baylis two firsts and six seconds; L. E. A. Greenleaf two seconds.

SITUATIONS, WANTS, FOR SALE.

Advertisements under this head will be inserted at the rate of 10 cents a line (seven words) each insertion. Cash must accompany order. Plant ads not admitted under this head.

SITUATION WANTED—By an experienced florist, S. aged 34, single, good references. Address J. J. Riverdale P. O., Cook Co., Ill.

SITUATION WANTED—By a bouquet, floral, and S. design maker; first class; German, single, 25 years old. Address HENRY EICHHOLTZ, Greenman Avenue, Westerville, R. I.

SITUATION WANTED—By a florist from the 1st of November to the 1st of April. Practical experience in greenhouses and cut flowers. Address Box 55, Cape May City, New Jersey.

SITUATION WANTED—By a single man as gardener; private or commercial; a Scotchman by birth; is well up in the florist business. Good references given. Address JOHN WHITE, Waverly Place, Elizabeth, N. J.

SITUATION WANTED—Twenty-five years' practical experience in forcing fruits, flowers, vegetables, in private and commercial establishments and in improving of grounds. South preferred. Reference. Address R. M. C. Milford, Mass.

SITUATION WANTED—As gardener; single; age 32; thoroughly understands the business in all its branches. Can produce first class references from several of the leading families in England and Ireland. R. W. D. Newport postoffice, Newport, R. I.

SITUATION WANTED—As gardener and florist. S. by a Scotchman; thoroughly understands the growing of all flowers, fruits and vegetables, also hot and cold greenhouses, lawns and pleasure grounds, age 33; wife and one child. Address W. A. Foltz-Yell, Union, Monroe Co., W. Va.

SITUATION WANTED—As gardener, private place preferred, age 28, English, has thorough practical knowledge of orchards, stove and greenhouse plants, vinerias and the raising of early vegetables, 12 years' experience at first class places. Address R. N. care Alfred E. Whittle, 1020 Madison avenue, Albany, N. Y.

WANTED—Competent propagator of roses and general stock. Only sober, industrious man willing to assist generally in the business. Permanent place to party of approved character and capacity. Address stating terms, etc., J. T. WILLIAMSON, Proprietor, La Rose Gardens, Memphis, Tenn.

WANTED—Experienced commercial florist as assistant foreman; married man preferred; one of executive ability, experienced in filling orders and capable of taking full charge of order and packing department is required. The applications of only first class men will be entertained who furnish good references. Address HENRY A. DREER, lock box 1618, Philadelphia.

FOR SALE—\$100 will buy half interest in a greenhouse, etc., near this city. Competent, single man only. Address E. F. LAURENCE, 505 K St. N. W., Washington, D. C.

FOR SALE—On account of other business, very cheap, one of the finest retail florist stores on the north side. Address FLOREST, 208 N. State Street, Chicago.

FOR SALE—Five acres, two greenhouses 18x100, shed, stable, dwelling, etc.; all new; two miles from Denver. Our sunny climate is recommended for its healthful qualities. Address Box 10, Montclair, Colorado.

FOR SALE—A good established florist business in a city of 16,000 inhabitants; 4,500 feet of glass, good stock greenhouse and bedding plants; city water; houses heated by steam; all in good repair; business paying well. Good reason for selling.
 Mrs. GEO. LOW, Stillwater, Minnesota.

FOR SALE—One-fifth interest in the largest nursery company in Southern California—capital stock \$50,000. Southern California will in time supply the United States with tropical plants and seeds. Good chance for a young man of delicate health.
 Address SECRETARY, Arroyo Vista, Pasadena, Cal.

FOR SALE—A rare chance for gardeners and florists. A well established and remunerative business, consisting of 6 adjoining lots in city, with a good dwelling, barn, 2 greenhouses with hot water furnace, a good well and hydrant water supply, 5 acres well cultivated vegetable garden within ½ mile from above mentioned premises, a large lot of choice plants, bulbs, trees, etc. 1 horse, wagons, cutter, sleigh, cultivator, seeder, garden implements for sale at a bargain. Apply early to
 MRS. MAGDALENE DINGER, Eau Claire, Wis.

ROSES.

In order to make room for young stock we offer the following low inducements: Bon Silene and Souv. d'un Ami, 3-inch pots, strong, \$7.25 per 100; Mermet, Cook, Papa Gontier, Red Niphetos, Perle, La France and M. Niel, from 3-in. pots, strong plants \$8.00 per 100. TEAS and HYBRIDS, from open ground, strong plants \$6.00, \$8.00 and \$10.00 per 100.

SMILAX, strong plants, \$2.50 per 100; \$20.00 per thousand.

CARNATIONS.

Florence, Alegatere, The Century, Philadelphia, Hinz's White, J. J. Harrison, Hinsdale and Mrs. Garfield, strong, healthy plants:

1st size, \$8.00 per 100; \$65.00 per 1000.

2nd size, \$6.00 per 100, \$50.00 per 1000.

VERBENAS.

Perfectly healthy outdoor rooted cuttings. Mammoth Set of 1889. \$1.25 per 100, \$0.00 per 1000.

General collection, variety unsurpassed, \$1.03 per 100, \$10.00 per 1000.

WOOD BROTHERS,

(Successors to I. C. WOOD & BRO.,) FISHKILL, N. Y.

ROSES FROM OPEN GROUND.

SAFRANO, ETOILE DE LYON, ADAM Tea, HERMOSEA, CORNELIA COOK, DUCHESS OF EDINBURG, MALMAISON, MME. LAMBAR, DUCHESS DE BRABANT, MARIE GUILLOT, OPELIA, MARIE VAN HOUTTE, LA FRANCE, BOSANQUET, SOMBREUIL, LA FACTO, E. BALTIMORE BELLE, QUEEN OF PRAIRIE, MAGNA CHARTA, MME. CHARLES WOOD, LOUIS VAN HOUTTE, MME. WELCH, M. F. KUGER, MME. JOS. DESBOISE.

And others. Price, \$10 per 100, \$80 per 1000, my selection from above named varieties \$20 at 1000 rates.

DEUTZIA GRACILIS, 3 years old, very bushy, \$8.00 per 100.

TABERN. FONTANA, 6 and 7-inch pots, \$1.00 per dozen.

A. LAUER,

1213 E. Broadway, LOUISVILLE, KY.

2500 ROSES.

Fine, healthy plants grown in 4-inch pots, at \$8.00 per 100, consisting of

PERLES, WIKMETTS, BRIDES, NIPHETOS, AMERICAN BEAUTY, DE WATTEVILLE, BON SILENE & SAFRANO, or will exchange for White Carnation plants.

JAMES HORAN,

BRIDGEPORT, CONN.

TREE ROSES.

4 to 5 Feet High.

Pot grown plants, and also from open ground. Best varieties and best plants in the country. Now ready for Fall trade.

GABRIEL MARC & CO.

WOODSIDE, L. I., N. Y.

IMPORTED M. P. ROSES,

Worked low on the Manetti Stock, offer the best results to the florist, blooming freely and giving plenty of cuttings for propagating quickly. Fine plants for sale by the 100 or 1000, at low rates.

Price Lists to applicants. Address

WILLIAM H. SPOONER,

JAMAICA PLAIN, (Boston), MASS.

G. BENARD,

ORLEANS, FRANCE.

ROSES ON THEIR OWN ROOTS

A SPECIALTY.

NURSERY STOCK OF ALL DESCRIPTIONS

For particulars apply to

E. BENARD, JR.,

P. O. Box 1400, SAN DIEGO, CAL.

PROFITABLE ROSES FOR FLORISTS.

We have an exceptionally fine lot of Roses from the open ground that can be potted in 6, 7 and 8-inch pots. Florists will find them more profitable to grow than the ordinary field grown 4 and 5-inch pot roses. We only offer a few varieties, but all are the best market sorts.

Etoile de Lyon, La France, Hermosa, The Gem, Malmaison, Meteor, The best Dark Red.

Mme. Etienne or Dwarf Mermet; the BEST PINK for market. Mme. Agathe Nabonnand, Rosy flesh; immense buds.

ORDER NOW. PRICE, \$12 per 100. TERMS, Cash with the order.

ROBT. SCOTT & SON,

19th and Catharine Streets, PHILADELPHIA, PA.

IMPORTED LOW-BUDDED DWARF AND TREE ROSES,

Rhododendrons, Azaleas, Etc.,

FROM THE BOSCOOP, HOLLAND, NURSERY ASSOCIATION.

NOW IS THE TIME

to forward orders for Fall and Spring delivery. For Catalogues and information,

Address

C. H. JOOSTEN,

3 COENTIES SLIP, NEW YORK.

SOLE AGENT FOR THE U. S.

E. Verdier fils aine, 37 Rue Clisson, PARIS, FRANCE,

Reminds his American patrons that he makes it his business to collect, every autumn, all the desirable continental NEW ROSES and to furnish them, in strong plants obtained from their producers. Some of these producers being slow in announcing the names and descriptions of their NOVELTIES, Mr. Verdier can but be late also, in reporting them in his descriptive price list—which shall be mailed, as soon as issued, to all applicants, by his Agent:

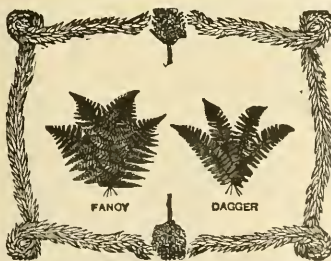
C. RAOUX, 296 Pearl Street, NEW YORK.

GRAPE DUST

KILLS MILDEN ON ROSES.

SOLD BY SEEDSMEN.

For Samples address SLUG SHOT, Fishkill-on-Hudson, N. Y.



1,000,000 EVERGREEN CUT FERNS

ESPECIALLY FOR 'FLORISTS' USE.

\$1.50 per thousand Ferns. Discount on large orders. Special attention paid to supplying to the wholesale trade. Write for prices.

BOUQUET GREEN. \$2.00 per bbl. (30 lbs.)

\$2.00 per 100 lbs.

20,000 yds. BOUQUET GREEN WREATHING, all wound with wire in first class manner

3-in. flat or one sided wreathing..... per yard

3-in. round wreathing, with cord in center..... 6 cts.

3-in. round wreathing, with cord in center..... 8 cts.

3-in. round wreathing, with cord in center..... 10 cts.

700 LBS. DRY SPHAGNUM MOSS,

\$1.00 per 100 or 6 bbls. for \$5.00. Write for terms on large lots.

L. B. BRAGUE, Hinsdale, Mass.

ROSES.

35,000 of the leading Foreing and Bedding varieties: TEAS, HYBRID TEAS and HYBRID PERPETUALS. Teas, \$5.00 per 100; Hybrids, \$5.00 per 1000. My selection of varieties. Also the leading Prize winning varieties of CHIRYSANTHEMUMS, CARNATIONS, and general Greenhouse stock. Trade List mailed on application.

JACOB SCHULZ,
LOUISVILLE, KY.

Mention American Florist.

WANTED, 250 strong roots DOUBLE

WHITE PEONIES.

Address, with lowest price,

FRED H. LEEDON,

Gen'l Delivery, New York City.



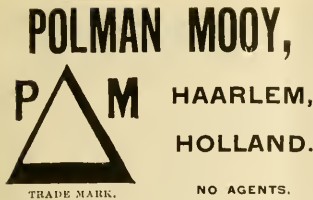
Electro of this Cut 75c. A larger one \$1.50.

A. BLANC,

Horticultural Engraver,

PHILADELPHIA.

5000 ELECTROTYPE PLATES FOR ILLUSTRATING FLORISTS, SEEDSMEN & NURSERYMEN CATALOGUES CHEAP. A FULL SET OF CATALOGUES ILLUSTRATING ALL CUTS, SENT ON RECEIPT OF 50 cts., WHICH DEDUCT FROM FIRST ORDER.



FORCING BULBS

VALUABLE NOVELTIES
IN TULIPS.
BEST FORCING DAFFODILS.
Write for new list, now ready.

R. VAN DER SCHOOT & SON,
HILLEGOM, HOLLAND.
LARGEST GROWERS OF

HYACINTHS, TULIPS, NAR-
CISUS, SPIRÆA, LILIES
OF THE VALLEY, ETC.

Headquarters for Forcing Bulbs. Whole-
sale Importers should write us for prices.

GREAT REDUCTION OF PRICES

White Roman Hyacinths, 11 to 13 cm.	Per 1000
" " " " 11 to 15 cm.	100 francs
" " " " 12 to 15 cm.	125 "
Narcissus Paper White.	22 "
" " Double Roman.	22 "
Lilium Candidum, 20 to 22 cm.	55 "
" " " " 23 to 25 cm.	60 "

F. PHILIP,

1 Place d'Italie, TOULON, FRANCE,



TRY DREER'S
GARDEN SEEDS
Plants, Bulbs, and
Requisites. They are
the best at the lowest prices.
TRADE LIST issued
quarterly mailed free.
HENRY A. DREER,
Philadelphia

Large Irish BEACONSFIELD Yellow Primrose
for Naturalization in the States,
WM. BAYLOR HARTLAND, Seedsman,

CORK, IRELAND.
Offers New Seed just harvested, per lb. 50s; ¼ lb. 27s
6d; ½ lb. 15s; ounce 5s, for immediate reply and cash
with foreign orders, so long as unsold. Old estab-
lished Seed Warehouse, 24 Patrick St., Cork.
He also offers New Crop of the SNOWBURY
(Chionodoxa), and Fine Trumpet Daffodil
Seed, from his celebrated collection.

CINNAMON VINE.

(Dioscorea Batatas.)

For sale in October, 4000 Cinnamon Vine tubers
Strong roots grown from tuber cuttings. By express,
per 100 FT. Ql. Cash with order.

Address MISS HATTIE A. HEATON,
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AMPELOPSIS VEITCHII,

2½ to 3 feet. \$5.00 per 100
PANSY PLANTS. 75 cts. per 100; \$5.00 per 1000

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SUNNYSIDE FLORAL NURSERY,
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DON'T FORGET that we can furnish the trade
first class Pearl and double Italian Tuberose bulbs
(November delivery) at \$1 per 100; 2nd size \$1.00.
We also have Cape Jasmine from 1 to 4 ft. Azalea
double and single, 1 to 2 ft. Olea fragrans, 12 to 15
inches bushy, in 4 in. pots; Clematis crispae; Venus
Fly Trap; Sarracenia purpurea and many, and other
native plants at reasonable prices, and in any
quantity.

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FLORISTS' BULBS and SEEDS, NOW READY.

LILUM HARRISII, 5 to 7-inch. . . . \$7 00 per 100; \$65 00 per 1000
" " " " 7 to 9 inch. . . . 9 50 " " 90 00 "

TUBEROSE EXCELSIOR PEARL, READY NOV. 1,
\$1 50 per 100; \$12 50 per 1000; f. o. b. New York.

Very complete list of seasonable "Florist Seeds," PRIMULA, PANSY, DAISY, &c.

WE CARRY 400 VARIETIES OF CHRYSANTHEMUMS.

Plants ready to ship at all times.

GLADIOLUS "SNOW WHITE"

will be for sale by all dealers next January. To all wishing a description, or to cata-
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Dutch Bulbs in Endless Quantities

HYACINTHS OF FINEST QUALITY.

TULIPS OF ALL LEADING VARIETIES.

CROCUS, NARCISSUS, FREESIA,
LILIUM CANDIDUM AND HARRISII

AND ALL OTHER FLORISTS' WANTS, AT WONDERFULLY
LOW PRICES.

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WHOLESALE GROWERS AND IMPORTERS,

1301 & 1303 Market St., PHILADELPHIA, PA.

J. A. DE VEER,

183 WATER ST., NEW YORK,

offers Finest Stock of DUTCH BULBS, ROMAN HYACINTHS, PAPER WHITE NARCISSUS, LILIUM
CANDIDUM and HARRISII, LILY OF THE VALLEY (True Berlin pips and Dutch clumps,
FREESIAS, CALLAS, AND OTHER DESIRABLE

FORCING BULBS FOR FALL DELIVERY.

Also prime Nursery Stock, such as Roses, Azaleas, Camellias, Rhododendrons,
Seeds, etc., from leading growers in France, Belgium, Holland and Germany, at lowest prices.

Sole Agent for HOOPER'S Celebrated Porcelain Flowers.

CATALOGUES FREE TO THE TRADE.

FALL BULB LIST NOW READY.



NOW IN STOCK.

ALL FORCING AND DUTCH BULBS.

FINE STOCK IN

ROMAN HYACINTHS, LILY CANDIDUM, LILY HAR-
RISII, FREESIA, VON SION NARCISSUS, DUTCH
HYACINTHS, NAMED AND MIXED TULIPS,
AND ALL SEASONABLE BULBS.

Send for Fall Catalogue of Bulbs and Florists' Supplies.

JAMES KING,

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APPLE GERANIUM SEED.

Fresh Crop of 1889. We can supply by
1000 or 10,000, as desired.
Per thousand. . . . \$2 50
Per ten thousand. . . . 20 00
CULLEN SEED, per 100. . . . 2 50

ADDRESS BROTHERS INDUSTRIAL GARDENS,
MOBILE, ALA.

CINNAMON VINE BULBLETS.

Per hundred, 50 cents; per thousand, \$4.00. Cash
with order. Address

MISS HATTIE A. HEATON,

Charlton, Saratoga Co., N. Y.

FINE LARGE FREESIA BULBS,

at \$2.50 per hundred. Send for samples.

HENRY MOORE,

54 Beale Street, Memphis, Tenn.

Send your address for my 1890

SEED CATALOGUE.

M. B. FAXON,

BOSTON, MASS.

Inter-State Fair at Elmira, N. Y.

Two weeks back I attended the Inter-State Fair held at Elmira, N. Y. I was glad to see that horticulture was well represented there. Mr. G. P. Rawson had quite a nice display in a prettily arranged booth, with which he took ten first and four second premiums; Mrs. H. D. Wells had a number of very good designs and made a large display taking two first and nine second premiums; the other prizes were taken as follows: Mrs. E. C. Palmer one second; Mrs. Asa Elliot four first, one second; Mr. J. F. Griffiths three first, two second; Mr. F. J. Kennedy three first, six second. The plants were not generally first class, but as good as could be expected considering the fact that they had to be kept in the building two weeks.

Mrs. Carney Compton got a \$100 prize for best decorated booth using grain in the straw for the decorations. This liberal premium should have brought out lots of competition, but there was only the one exhibit.

I think the idea of having a horticultural department in connection with agricultural fairs should be encouraged by florists making a good display. They are held pretty well all over the country and attended by great numbers of people who have not the opportunity of seeing the large horticultural exhibitions held in larger cities, and no doubt many of them would become future customers of the florists. J. B.

Great Destruction of Plants by Frost at Ghent.

We regret to learn from Ghent that the nursery trade there has for the moment been almost paralyzed through a sharp frost September 16, which has committed terrible havoc among the azaleas. The frost came on about 2 o'clock on Monday morning, and by daylight it was apparent that a most irreparable loss had been sustained. Thousands upon thousands of beautifully grown plants present the appearance of having been scorched by fire, the hot sun, following so quickly after the frost, developing the injury quicker than if the weather had been dull. Packing operations for export were to have commenced in earnest on the very day of the disaster, and the disappointment to the customers will be great. The loss to the growers will prove the most serious misfortune that has befallen them within the recollection of the oldest horticulturist in Ghent. — *Gardening World*.

Caution.

I wish to warn my brother florists against an individual giving his name as James Pendergast and representing himself as having been a rose grower for me. No such man has ever been in my employ. I have had several queries in regard to him, the last two from Colorado which I enclose. His having gone to the trouble of having cards printed bearing my name leads me to believe that he is attempting to impose upon those in the trade where he happens to be and possibly to perpetrate some swindle. I would feel obliged to anyone who will furnish me particulars about him.

Sus. mit, N. J.

JOHN N. MAY.

[The printed card which was enclosed read: "James Pendergast, Summit, N. J., Rose grower for John N. May."]

AUGUST RÖLKER & SONS,
44 Dey Street, NEW YORK.

HORTICULTURAL DEPOT

—AND—
PLANT AUCTIONEERS.

TWO SALES EVERY WEEK.
CONSIGNMENTS SOLICITED.



Any one with a cellar or stable can do it. Our pamphlet, "How to Grow Mushrooms," gives full instructions. Send for it. A trial brick of Mushroom spawn (enough to plant a space 5 ft. by 4 ft.) sent by mail, to any address for 25c. 10 lbs. by exp. for \$1.20. 50 lbs. for \$5. Our handsomely illustrated catalogue of Vegetable, Flower, and Farm Seeds, and all requisites for Farm, Garden, and Lawn, free to all.

JOHN GARDINER & CO., 21 North 13th St., Phila., Pa.

CARNATIONS.

Field grown Portia, DeGraw, Juliette, Century, Edwardsl, King of Crussons, \$5 per 100; \$45 per 1000. Also fine, large clumps of Neapolitans, Marie Louise and Swanley White Violets, \$5.00 per 100; \$50.00 per 1000.

JOS. RENARD,

UNIONVILLE, Chester Co., PA.

Telephone connections.

FIELD GROWN CARNATIONS.

We have 10,000 plants in fine condition to dispose of at reasonable rates.

Also 5,000 to 8,000 VIOLETS for winter blooming.

Write for circular and prices.

W. R. SHELMAIRE,

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CARNATIONS.

Field grown, strong and healthy.

HINZES WHITE, PORTIA, SNOWDON, ALEGATIERE, and other fancy sorts.

First size, \$8.00 per 100. Second size, \$5.00 per 100. SMILAX, first class, 2½-inch pots, \$2.50 per 100; \$30.00 per 1000.

Dreer's finest mixed PANSIES, \$5.00 per 1000.

J. G. BURROW, Fishkill, N. Y.

75,000 VIOLET PLANTS FOR SALE.

All good, strong, healthy plants, 10 percent better than last year. Per 100 Per 1000

Marie Louise, double blue..... \$2.50 \$22.00

Car. single blue..... 2.50 22.00

Swanley White double white..... 2.00 18.00

Runners of Swanley White, well rooted, 1.00 8.00

Also 3000 Magnolia grandiflora in 2 and 2½-inch pots..... 5.00 45.00

Or will sell 5000 any of the above at 1000 rates.

Cash must accompany orders from unknown parties.

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HYDE'S FERRY GARDENS, NASHVILLE, TENN.

NEW SWEET SCENTED
CHRYSANTHEMUM

"Nymphaea." A decided novelty. Form and fragrance of Pond Lily. Fine for florists' use. A so the crasse de la crise of older varieties. Send stamp for plate of "Nymphaea," and Catalogue.

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FLORISTS' - SYLVAN - SUPPLIES.
Evergreen, Ala.

CUT FERNS IN VARIETY.

Evergreen and Deciduous; also Mosses, Holly, Mistletoe, Wild Smilax and all Evergreens. Telegraphic orders receive prompt attention. Correspondence solicited.

When you have a large Decoration consult me.

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in 2-inch pots, fine plants, \$2 a 100. In larger lots at lower rate.

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OAK PARK, ILL.

R. S. BROWN & SON.

SURPLUS STOCK FOR OCT.

All Stock offered is in No. 1 Condition for Bedding out or for Stock to grow on.

	Per 100
Abutilons, fine kinds.....	\$ 4.00
Achyranthes.....	3.00
Alternantheras, of sorts.....	3.00
Alyssum, 2 kinds.....	3.00
Anthericum vitatum.....	6.00
" picturatum.....	10.00
Begonias, Flowering, of sorts.....	4.00
" Rex, of sorts.....	\$5 to 16.00
Croton, narrow leaf.....	8.00
Cuphea or Firecracker Plant.....	3.00
Cyperus alternifolius.....	8.00
Echeveria glauca.....	\$2.50, \$4.00 & 5.00
Euphorbia splendens.....	\$4.00 & 6.00
Ferns, in sorts.....	8.00
Geraniums, double and single, \$3 to.....	4.00
" Ivy, in sorts.....	4.00
" Mme. Sallerol.....	3.00
" scented, in sorts.....	3.00
Hibiscus, of sorts.....	4.00
Hollyhocks, of sorts, fine plants \$6 & 8.00	
Jasmine grandiflorum.....	\$6.00 & 8.00
Lantanas.....	4.00
Lemon Verbena.....	4.00
Lobelia, trailing and dwarf.....	3.00
Lycopodium, 4 varieties.....	6.00
Moon Flower.....	4.00
Nasturtium, new double red.....	8.00
" " yellow.....	5.00
" of sorts.....	3.00
Passiflora Pfordtii.....	8.00
" Incarnata.....	6.00
Pilea arborea (Artillery plant).....	3.00
Sedum carneum var.....	4.00
Smilax.....	\$3.00 & 4.00
Spotted Calla.....	6.00
Stevia variegata.....	6.00
Thyme Golden.....	4.00
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SOME CHOICE STOCK

ON WHICH YOU CAN MAKE MONEY.

	Per 100
1000 Hibiscus, 2½-inch, fine.....	\$ 5.75
250 Jasmine grandiflorum, 2½-inch.....	5.00
100 Double Alyssum for winter bloom.....	2.50
2500 Smilax, nice, 2½-inch.....	2.00
1000 Primula Obconica, 3-inch.....	2.00
400 Asparagus tenuispinus, 2½-inch.....	3.50
300 Ampelopsis Vetchii, 2½-inch.....	3.00
2500 Roses, TEAS, in variety, 3-inch.....	5.00
400 " Mermets, 3-inch.....	4.00
400 " Last Washington, 3-inch.....	3.00
400 " Duchesse d'Brabant, 3-inch.....	5.00
200 " Mme. Joseph Schwartz, 3-inch.....	5.00
500 Carnations, PORTIA, fine clumps.....	5.00
2000 Geraniums, nice variety, 3-inch.....	3.50

Address

N. S. GRIFFITH,

JACKSON CO. INDEPENDENCE, MO.

(Independence is well located for shipping, being 5 miles east of Kansas City.)

	Per 100
2000 Rooted Cuttings Coleus.....	\$ 1.25
100 Tuberosa Begonias, 2½-inch pots.....	6.00
100 Metalia " 2½-inch pots.....	6.00
500 Dracena indivisa, 3-inch pots.....	8.00
Mr. Alpheus Hardy, 2½-inch pots.....	.25
Mr. Andrew Carnegie, 2½-inch pots.....	each .75

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PRIMULAS.

Strong plants of P. Obconica for winter flowering. In light cases, by express, \$5.00 per 100. Fresh Crop (1899) of "Obconica," \$1.00 per 100 seeds.

	Per 100
A. CUNATIA, from 2½-inch pots.....	\$ 5.00
" 3-inch pots.....	6.00
A. MORITZIANA, from 3-inch pots; fine bushy plants, grand for filling ferneries, etc. 6.00	
FISHER BROS. & CO., Montvale, Mass.	

Double White Primulas, \$10, \$12 and \$15 per hundred.
Lilac, 4 to 6 ft., well set with buds, nursery grown, for winter blooming, \$25, \$35 and \$50 per 100. Cash with order will receive prompt attention.

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NEW CROP PRIMULA OBCONICA SEED NOW READY.

Packet (about 1000 seeds) \$1 00
PRIMULA FLORIBUNDA, pkt (100 seeds) 25c.
PRIMULA OBCONICA PLANTS, from 3 & 3 1/2-
 inch pots, \$1.25 per doz; \$10 00 per 100.
PRIMULA FLORIBUNDA, 2-inch pot plants,
 60 cts. per doz; \$4 00 per 100.

Carnations, field grown, BelGraw	Per 100
" " " " " " " "	5 00
" " " " " " " "	6 00
Chrysanthemums, pot grown, 50 vars	\$10 to 15 00
Begonia Rex	6 00
" " " " " " " "	3 00
Daisies English, 2 inch	2 50
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Vinca Major Var. large, field grown	10 00
Violets, field grown, 3 varieties	5 00

I. N. KRAMER & SON, MARION, IOWA.

Ampelopsis Veitchii, 1 yr field grown	\$2 00
" " " " " " " "	3 00
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Verbenas, per 1000, \$15	2 00

E. FRYER,
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ZIRNGIEBEL NEW GIANT MARKET AND FANCY PANSIES

Have again secured all the Prizes at the
 Boston Exhibitions of March and May last.

**NEW CROP SEED OF THOSE STANDARD
 VARIETIES AFTER JULY 1st.**

Trade Packages of either strain at \$1.00 each.
 Packets contain 1,500 and 600 seeds respectively.

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PANSIES.
THE JENNINGS STRAIN IS No. 1 EXTRA SEED
 25, 50 and \$1.00 per packet.
PLANTS, large size in bloom for winter flower-
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Cold Frame size, nice plants 50 cents per hun-
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 PURE, FINE and strictly First-Class. Send for
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**EVERYBODY CAN AFFORD ONE.
 ORDER NOW.**

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HEADQUARTERS for CHRISTMAS TREES!

Wisconsin Blue Spruce. The finest of all in form and
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lected trees, carefully packed in light, strong crates, con-
 taining 25, 50 and 100 trees, delivered, Freight Charges Paid,
 to any point within 500 miles of Chicago, at prices here
 quoted:

	25	50	100
3 to 4 feet	\$ 3.50	\$ 6.00	\$10.00
4 to 6 feet	6.00	11.00	20.00
6 to 8 feet	10.00	16.00	30.00
8 to 10 feet	15.00	25.00	45.00
10 to 12 feet	20.00	35.00	60.00
12 to 14 feet	25.00	45.00	75.00

Special correspondence solicited on our lots.

As the Western Classification of roads now exact, by a
 recent ruling, **ACTUAL PREPAYMENT** of all freight charges
 on Christmas Trees, I am obliged to assume these charges,
 and also all risks of transportation; hence I am under the
 necessity of insisting upon the following

TERMS OF PAYMENT: At least one-half cash with order; balance 30 days
 approved credit. All bills to be paid not later than January 1st, 1890. No attention
 will be paid to orders not complying with above terms.

W. D. BOYNTON, SHIOCTON, WISCONSIN.

A. T. Merrick.
 Artistic ENGRAVER
 for FLORISTS.
 211 CHICAGO
 OPERA HOUSE.
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Send 10 Cents for

CATALOGUE

ROSES, ETC.



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Our Wholesale List of Imported and Domestic

BULBS, PLANTS AND SEEDS

for Florists' Stock is now ready and will be
 mailed to all applicants.

MICHEL PLANT AND SEED CO.,
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PANSIES.

QUALITY HIGH.

PRICES LOW.

I attend personally to selecting the finest specimens only, for my seed bed, trying the various
 novelties and discarding those without special merit. Growing seed enough only to produce what
 plants I sell, I can make a finer selection than if grown in quantity.

From the sale of over **100,000 Plants** last season I have received numerous
 recommendations. Not one complaint.

PRICES: Good stocky plants from seed beds, 75 cents per 100 free by mail, \$5.00 per
 1000 per express. Send for circular.

ALBERT M. HERR, Lock Box 338, Lancaster, Pa.

My Pansies are all from my own Seed Stock which I selected with most scrupulous care as to size and
 coloring. The varieties are in the proportion as indicated by the figures.

TIMARDEAU	7	STRIPED	1
PANSIES	5	BLUE	1
HIGNOT	2	WHITE	1
SE-PLUS-ULTRA	1	GUFF	1
GIANT SHOW	2	DARK SELFS	1
ROYAL DEBARS	2	RED, FINE	2

The collection can be furnished each separate, but in above proportion only 20 cts. per 100; \$5.00 per 1000.
 In complete mixture 60 cents per 100; \$5.00 per 1000. If by mail add 60 cents per 1000.

DANIEL K. HERR, Lancaster, Pa.

REMEMBER—The seed I use equals any of the high priced or fancy strains, and is in more variety.

REMOVAL.

Friends will please notice that I have occupied my new
 printing house, which is ideally situated and fitted up for
HORTICULTURAL PRINTING, with treble my former
 facilities, and plenty of room for extension. I am now ready to give better satisfac-
 tion than ever on Catalogues or any printing for florists, from the basis of a thorough
 knowledge of both flowers and printing. **ADDRESS NOW**

J. HORACE MCFARLAND, Mount Pleasant, Harrisburg, Pa.

Montreal.

The chrysanthemum show to be given by the Florists' and Gardeners' Club will open November 5. In addition to the "mums" there will be exhibits of orchids, roses, carnations, etc. We have decided to adopt the bank system of staging and expect to have about twenty banks 4 x 10 feet each in addition to spaces for the dozens, half dozens and single specimens.

The September show of the Montreal Hort. Society and Fruit Growers Association of the Province of Quebec was a total failure as far as the display of plants and flowers was concerned. There is much dissatisfaction on the part of the gardeners and florists on account of the too great prominence given the fruit interest at the expense of the floral display.

Wm. O'Hara, the St. Antoine street florist, has made an assignment with liabilities of about \$3,000.

P. McKenna & Son have given up their store on St. Catherine street but still continue plant and flower growing at their establishment at Cote des Neiges.

Joe Bennett has returned from his trip to Europe, he was given an ovation by the boys at the last meeting of the club.

In addition to the magnificent medal presented by Polman Mooy of Haarlem, Holland, to the Florists' and Gardeners' Club; the General Bulb Company of the same place, has promised two medals, all to be competed for at the March show of the club. Mr. Bennett has also offered \$50 for a collection of bulbs at the same show.

J. M. K.

Toronto.

A meeting for the purpose of forming a Florists' and Gardeners' Club was called for Wednesday the 2nd inst., at Jno. H. Dunlop's greenhouses and proved a very gratifying success; forty florists were present and all enrolled as members of the new club. The unanimous opinion prevailed that the Toronto Florists' Club from enthusiasm displayed was on a fair way to be a grand success, and wonder was that it had not been started before. F. G. Foster, of Hamilton, and H. Dale, of Brampton, graced the meeting with their presence and lent their aid. The first regular meeting will be held on Wednesday October 16, for the election of officers, etc.

The floral display at the Industrial Exhibition just closed was very creditable to the florists of Toronto, as a larger number of exhibits were made and the workmanship superior to any of the previous exhibitions, showing that we too are taking a step forward. Trade for this season of the year very good, principally funeral and wedding work. D

PRIMROSES.

A fine strain of Single Primroses, 4 inch pots, at \$5.00 per 100; 3 inch pots at \$5.00 per 100.

PRIMULA OBCONICA.

Strong plants, at \$1.80 per dozen.

SMILAX.

Good strong plants, in 3-inch pots, at \$3.00 per 100, \$25.00 per 1000.

LATANIA BORBONICA.

Fine shaped plants, in 4-inch pots, at \$3.00 per dozen, \$30.00 per 1000.

DRACÆNA TERMINALIS.

Good color, in 4-inch pots, \$3.00 per dozen.

DRACÆNA FERREA.

Strong plants, 4-inch pots, \$3.00 per dozen.

AMPELOPSIS VEITCHII.

From open ground, \$5.00 per hundred.

ROSES.

Good assortment in Teas, strictly my selection, at \$5.00 per 1000. Strong Baltimore Belle, in 4-inch pots, at \$10.00 per 100. Gen'l Jacquemini, in 2-inch pots, at \$5.00 per 100.

Send for Fall Catalogue.

GEO. W. MILLER,

1748 N. Halsted St., CHICAGO.

Mention American Florist.

IMMENSE STOCK OF

PALMS, ORCHIDS & DECORATIVE PLANTS

WHICH EVERY FLORIST SHOULD CARRY.

Wholesale Catalogue sent free. New Illustrated and Descriptive Catalogue (208 pages) 25c., which amount will be allowed on first order.

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ROSE HILL NURSERIES, New Rochelle, N. Y.

409 FIFTH AVENUE, NEW YORK.

SEVEN OAKS NURSERIES.

BAY VIEW, FLORIDA,

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European, Japanese and Australian

NURSERY  BULBS AND

STOCK, SEEDS.

Deput and Greenhouses, 15th and Polson Sts. Address P. O. Box 1501. SAN FRANCISCO, CAL.

JUST RECEIVED FROM AUSTRALIA:

FRESH Araucaria Excelsa Seed (best crop for yrs.)
Kentia Belmoreana, Fotheriana, Canterburyana.
Areca, Corypha Australis, etc.

SEND ORDER AT ONCE.

GLAPTON NURSERY, LONDON,

and BUSH HILL PARK, ENFIELD.

The GLASS STRUCTURES cover an area of upwards of 315,000 feet.

EIGHTY HOUSES DEVOTED TO THE CULTURE OF ORCHIDS, PALMS, and FERNS.

Immense quantities of Winter and Spring Flowering Plants in variety, Ornamental Foliage Plants, Fruit Trees, Grape Vines, Roses, Shrubs, etc.

INSPECTION OF THE STOCK INVITED.

HUGH LOW & CO.

CHINESE PRIMULAS,

from the best of many strains 10 varieties including double white and pink.

Extra strong, 2 1/2 inch pots, \$3.00 per 100.

P. OBCONICA, 2 1/2 inch pots, \$1.00 per 100

CYCLAMEN

Seed from our best plants, chiefly Giant Cyclamens, an extra fine strain. White, white with crimson and mauve base spotted, and shades of crimson and lilac. Now at once.

Per packet 25c., 50c. and \$1.00. Cyclamen plants (light colors only), ready for 4 and 5-in. pots, \$7.00 per 100.

J. LAURENCE, Harrisburg, Pa.

FLORISTS' STOCK.

Cyperus, strong, 4 inch, 2 ft.	Per 100	\$ 8.00
Fuchsia, stock, 4 inch.	.....	5.00
..... Rooted Cuttings	.....	1.00
Geraniums, rose-scented	.....	3.00
Torenia Asiatica, 3-inch	.....	5.00
Streptolaten Jamesonii	.....	4.00
Hydrangea, 3-inch	.....	5.00
..... 4-inch	.....	10.00
..... 6-inch	.....	25.00
Tradescantia multicaulis	.....	4.00
Hardy Finks, 6 varieties, change	.....	10.00
Iris Kumpferlii	.....	10.00
Hardy Phlox, 12 varieties ground roots.	.....	15.00
Cyclamen, 4-inch	.....	\$ 1.50
Dracæna Indivisa, 6-inch, strong	.....	5.00
Callas, 4-inch	.....	2.00
Sphagnum Moss	..... per bbl.	1.00

O. L. MALL, Springfield, Mass.

ORCHIDS! ORCHIDS!

Many additions of Choice New varieties this season.

Send for New Catalogue.

WM. MATHEWS,
UTICA, N. Y.

CUT BLOOMS AT ALL SEASONS.

ORCHIDS

Cheap as Good Roses.

Send 2 two cent stamps for Catalogue and Plate.

BRACKENRIDGE & CO., Gettysburg, Md.

Ferns, Palms, Orchids.

FERNS FOR FLORISTS' PURPOSES,
BY THE HUNDRED OR THOUSAND.

GEO. WITTBOLD,

Cor. School and Halsted Sts.,
LAKE VIEW, CHICAGO.

ORCHIDS.

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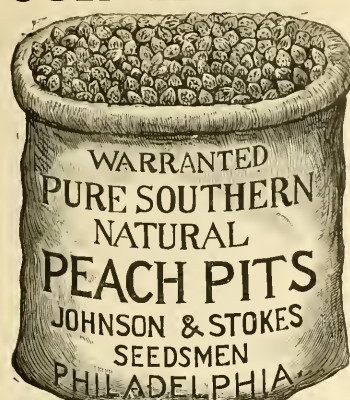
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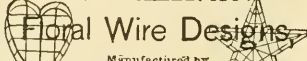
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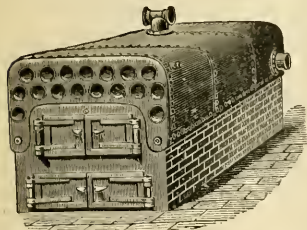
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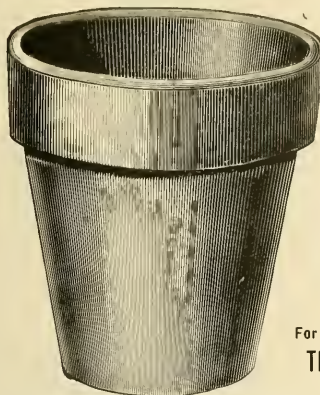
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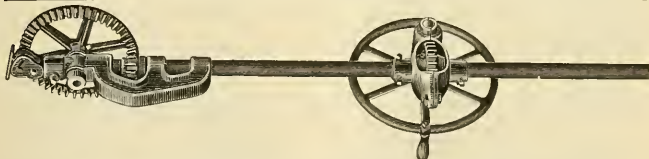
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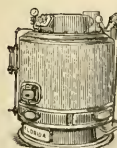


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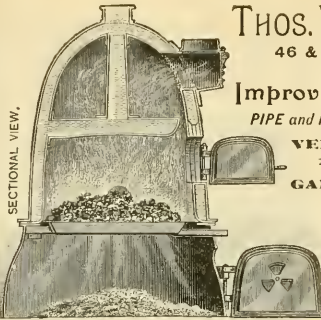
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Index to Advertisers.

Advertising Rates, etc.	116
Aldine Printing Wks.	125
Allen, W. S.	125
Baller P. A.	125
Bayardorfer M. M. & Co.	125
Benard G.	125
Benz Albert	125
Berger, H. H. & Co.	124
Biane A.	119
Boynton W. D.	125
Braque L. B.	119
Brackenridge & Co.	124
Brothers Paulinus.	121
Brown R. S. & Son.	122
Barrow J. G.	122
Caldwell Geo W.	122
Carmody J. D.	128
Connelly John	121
De Veer J. A.	121
Devine, Peter	127
Dien, John L. & Co.	127
Dillon, J. L.	117
Dreer, H. A.	121
Ely Z. De Forest.	121
Fassett, F. E. & Bro.	117
Faxon M. B.	121
Fisher Bros & Co.	122
Fisk Chas H.	122
Foster F. W. & Co.	122
Fryer E.	121
Fulweiler F. C.	127
Gardner Inc. & Co.	127
Gardner John G.	125
Greene W. W. Son & Co.	125
Hayden	125
Griffith, Jas.	125
Griffith, N. S.	125
Hales, H. W.	125
Hall O. J.	124
Hallock, W. H. & Son.	121
Hammond, Benj.	115
Hammond & Hunter.	117
Hantzsch Rudolph.	126
Harland W. B.	121
Henton Hattie A.	121
Hendrix W. W.	120
Herendeen Mfg. Co.	120
Herr, Albert M.	123
Herr Daniel K.	123
Hippard E.	127
Hitchings & Co.	128
Hooker, H. M.	126
Horan, Edw C.	127
Horan Jas.	119
Hoyt E. D.	124
Hudson John M.	117
Hutches E. G.	125
Ives, J. H.	125
Jennings E. B.	123
Johnson & Stokes.	125
Jousten C. H.	119
Kennicut Bros.	117
Kimball A. S.	121
King Jas.	121
Kramer I. N. & Son.	123
Krick, W. C.	123
Land James M.	121

La Roche & Stahl	117
Launer A.	119
Laurence J.	124
Leedon P. B.	119
Lockland Lumber Co.	126
Low Hugh & Co.	124
McFarland J. Horace	121
Marc Gabriel & Co.	119
Mathews, Wm.	124
Merrick, A. T.	125
Meyer Andrew	130
Michel Philip & Co.	121
Miller, Geo. W.	124
Moore Henry	121
Noy Polman	121
Mullen Geo.	117
Mundi Henry	122
Pennock Chas E.	117
Perkins, J. N.	127
Philip F.	121
Pierce Butler & Pierce	121
Pierson F. R.	120
Pike Co Nurseries.	128
Plenty, Joseph	124
Quaker City Mch. Wks.	124
Raoux C.	119
Reed & Keller	126
Renard Jos.	122
Riechers	124
Roach J. B.	120
Roberts J.	124
Rosen A. & Son	124
Ross & Millard	117
Saul John	124
Schiller & Millard	124
Scholz Jacob.	119
Schulz, John A.	128
Scott John & Son.	119
Shelmire W. R.	122
Siebrecht & Wadley	124
Situations, Wanted.	118
Smith David.	125
Smith Powell & Lamb	125
Spooner, Wm. H.	119
Steffens N.	121
Stewart, Wm. J.	117
Strauss C. & Co.	117
Stader N.	125
Taplin S.	122
Thompson Mrs J. S. R.	120
Trischler M. & Son.	122
Tuttle Sidney & Co.	120
Van der Schoot & Son	121
Vaughan, J. C.	117
Weathered, Thos. W.	128
Weich Bros.	117
Whitlin Pottery Co.	127
Wilks S. Mfg Co.	127
Williams H. W. & Son.	127
Wiseman Flower Ex. 117	
Witbold Geo.	124
Wolf, L. Mfg. Co.	126
Wood Bros.	123
Young, Thos. Jr.	117
Zirngiebel D.	123



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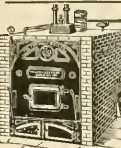
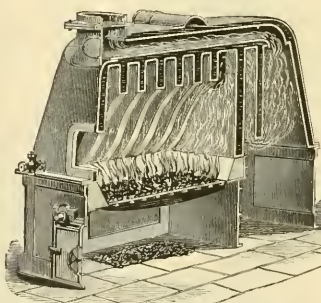
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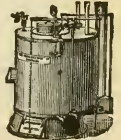
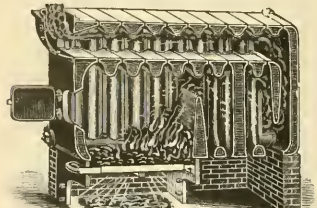
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THE AMERICAN FLORIST



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Vol. V.

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CONTENTS.

Scientific education for gardeners	129
Fungous diseases of plants	129
Bed of decorative plants (with illustration). .	131
Cockroaches	131
Roses—New Jersey notes	132
How to ship rose plants	132
Rose Duchess of Albany	132
Pale color in Perle buds and others	133
New Polyantha rose Clotilde Souper (illus). .	133
Carnations—New Jersey notes	134
Soils for carnations	134
Carnations—seasonable notes	134
Carnation cuttings (illustrations).	135
Caterpillars and greenfly	135
Chrysanthemums—very early sorts	136
" —cut flowers for exhibition.	136
" —the national society	136
" —October flowering	136
New gladioli	136
New types of hybrid gladioli (illustration) .	137
Long Island notes	137
Steam versus hot water for heating	139
Obituary—James Eadie	139
Catalogues received	140
Boston	140
Cut flower quotations	141
The seed trade	142
News notes	142
Coming exhibitions	142
Chicago	144
St. Louis	146
Minneapolis	148
Floral notes for daily press	150

ADVERTISERS should bear in mind that the FLORIST is a strictly trade paper and that wholesale price lists may be published in its columns without fear that the wholesale rates there given will be seen by retail buyers. Subscriptions from those who are not in the trade are invariably refused by us. Among those in the trade we include employees of commercial florists and private gardeners who have charge of greenhouses.

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AN ADVERTISEMENT in the new trade directory we are now compiling will be a standing adv for at least two years.

Scientific Education for Gardeners.

This subject does not seem to lose its interest, and there is apparently no question as to its importance. The only question is, What is science? and that is an easy one, although not generally understood. Most men think science a degree in the scale of knowledge that is only conferred by some institution of learning, that scientific men possess knowledge not easily gained. This is a great mistake. Let us see what the definition of the word is:

1st. Knowledge; penetrating and comprehensive information, skill, experience and the like.

2nd. The comprehension and understanding of truth or facts; investigation of truth for its own sake; pursuit of pure knowledge.

3rd. Truth ascertained; that which is known. —Webster.

Certainly there is nothing occult about this. Therefore, popularly speaking, science means exact fact, or any theory that may be reduced to practice. Now Mr. Henderson's reference to the knowledge of rose growing (page 82) is a concise and clear definition of science. To that let us give an illustration. Some years since Mr. Henderson gave to the horticultural world a paper on the "Use of the feet in seed sowing," the most useful he ever wrote. To the many this announcement was an astounding theory, it completely upset all pre-conceived ideas of seed sowing. Many accepted his views at once, and followed his instructions, the result is, no gardener worthy the name thinks of sowing seed in any other manner. Experience has proven his theory a fact, a scientific fact, and he a scientist, because whoever adds to the knowledge that already exists, a fact not previously known, is a scientist; it matters not whether that man be a gardener or an acknowledged philosopher, the discovery of an important fact makes the discoverer a philosopher.

No one ought to question the importance of scientific knowledge or education for gardeners. The important question is, where can this be obtained? From books? no; from a college? no. We heartily endorse the importance of both, but the book is but the record of another man's experience, and in the college you only learn what is in the book. Where then shall the gardener or his sons look for scientific education? Taking it for granted he has a good rudimentary education the book for the gardener to study is the garden, all that is known or ever can be known is there, it is for him to find it out. Not one iota of knowledge about gardening was ever learned in any other place, however much the facts may have been disseminated after.

Whatever pursuit a young man may choose for a livelihood his first step is to inoculate his mind with noble, systematic thought. He should accept all other

men's views, all established customs with a respectful protest. The young gardener, while following to the letter all methods now in use, all accepted theories, all the knowledge that exists, should make the best application of them possible, then enter his educational course. Perfection in this life is "that gay tomorrow of the mind which never comes," there is ever something new to learn. Methods, appliances, in fact everything that relates to horticulture, whether in the cultivation of old forms or the development of new and greater forms, are susceptible of improvement. Progress is the watchword of the day, and horticulture keeps pace with all other industries. Thought systematically employed is the parent of science, and nowhere is there a wider or more interesting field for its employment than the garden.

No gardener, young or old, should be content with the present, but dwell in the future and assist in that perfection or development of forms which will never cease. Books will materially assist him, an interchange of thought, conversation with men of wide experience is essential, but the application of the human intellect, close observation and a clear discrimination united with indefatigable industry is the course of study for the young gardener to pursue in order to reach distinction.

C. L. ALLEN.

Floral Park, N. Y.

Fungous Diseases of Plants.

Various rusts, smuts, mildews, blights and similar diseases of cultivated plants have been generally known and dreaded since plants began to be cultivated. Any understanding of the cause of these troubles, of the conditions of their occurrence, and of their relations to each other and to the plants they infest is a matter of comparatively recent acquisition even among botanists. Among American farmers and gardeners it is only recently that intelligent inquiry and thought regarding these important sources of loss has been awakened, and they are but just beginning to be popularly spoken of as fungous diseases. With this increased popular interest has naturally arisen an increased interest in their scientific investigation, which is as yet but fairly begun, and in the practical application of our technical knowledge in devising ways and means for checking the spread and preventing the ravages of the pests. It is, doubtless, true that to the average reader the term fungus carries with it no definite idea. This is due partly to the newness of the popular use of the term and the meagreness of generally accessible sources of information concerning the fungi, and partly to the inherent difficulty and technicality of the subject. To obtain a clear notion of organisms so small as to be barely recognizable by the

naked eye and requiring high powers of the microscope for their study, yet with such apparently disproportionate capacities for mischief, is not easy. It is, for this very reason, all the more important that, in a discussion of fungous diseases intended for popular information, an attempt should be made at the outset to remove, so far as may be, this fundamental difficulty.

In the first place, then, a fungus is a plant, as truly and essentially a plant as the corn stalk or rose bush on which it grows. Yet it is not only much smaller, but also much simpler than these. While the plant body of the corn or rose shows much specialization of structure, having the various vegetative functions of the plant performed by distinct organs, the root, stem and leaves, very many plants show no such specialization, but have all their vegetative functions performed by the whole plant body, which then needs no variety of organs. Of the latter class of plants are the rock weeds and sea mosses, the fresh water pond scums and the fungi, which are obviously much simpler and more primitive plants than those with roots, stems and leaves. In all true fungi the plant body consists of numerous simple or branching white threads which spread over the surface or through the substance of the object on which the fungus grows. These threads constitute the so-called mycelium of the fungus, and are comparable with the more elaborate plant body of other plants, since they perform all its vegetative functions.

Equally important with its own healthy growth is the provision by any plant or animal for the perpetuation of its kind, and to this end it develops organs of reproduction. In many of those plants provided with root, stem and leaf, these reproductive organs are grouped into a structure called a flower, and such plants are known as flowering plants. They all produce, by the further development of certain parts of their flowers, structures known as seeds, which can, under favorable conditions, develop into new plants similar to that which produced them.

Fungi do not produce flowers, and they vary greatly in their reproduction, but they all agree in producing bodies called spores, much simpler than seeds, as would be expected, but analogous to seeds in their ability to develop, under favorable conditions, into plants similar to those which produced them. These spores are usually produced on special fruiting or reproductive threads which grow from the vegetative threads of the mycelium of the fungus. The reproductive threads may remain separate, thus producing their spores free in the air; or they may become interlaced or consolidated into a complicated fruiting structure, on which the spores are produced either superficially or in cavities from which they finally escape into the air. The spores of fungi, being so small and light, are readily taken up and widely spread by currents of air, and are easily carried by insects from plant to plant. In such ways a fungous disease may spread from a single insignificant case until it becomes epidemic over a large area.

In the course of its life-cycle the ordinary flowering plant passes from the seed, through the seedling, to the adult plant bearing flowers and then seeds like that from which it grew. Many of the fungi, however, pass through a much more complex life-cycle, during which a given fungus may produce several kinds

of spores and assume several forms so unlike each other that they can be recognized as different stages of the same plant only by careful, patient cultivation and study. It is convenient to select some one stage of such a variable fungus as its perfect or adult form, and it is natural and logical to regard as such that stage in which the fungus shows the greatest elaboration of structure, while the simpler stages through which it passes are commonly called imperfect forms. This tendency of fungi to variety in form, or pleomorphism, as it is called, greatly increases the difficulty of their study and complicates those problems which concern the successful combating of fungous diseases.

A question which very naturally suggests itself is: Why do fungi attack and cause diseases of other plants, instead of living independently? This question involves matters of the greatest interest and of fundamental importance and significance. It is well known that all green plants owe their characteristic color to the presence of a definite pigment known as leaf-green or chlorophyll, which is so generally present among the higher plants, that to most minds the very word plant carries with it the idea of greenness. Now the possession of chlorophyll is the pre-eminent feature which gives to plants their all-important place in the economy of nature. No living thing can continue to live on inorganic substances, but all require as food some of those materials of comparatively complex chemical composition, known as organic substances. The materials furnished by the earth, the air and water are all of simple composition and unorganized, but in leaf-green we have the connecting link, the means of bridging the interval between the inorganic and the organic. We need not here discuss the process in detail. It is sufficient for our present purpose to say that in Nature's laboratory of the leaf, some of the simple constituents of air and water are combined, by the action of leaf-green in the sunlight, into the complex organic compounds which serve the plant as food. The chemistry of this remarkable process is not well understood, but the commonest permanent form in which these food materials appear is that of starch.

Now, as was noticed above, the threads of the fungi are white, uncolored; that is, they contain no leaf-green. Consequently the fungi can not elaborate their own food material, but must obtain it ready elaborated from some other source. Evidently the available sources of organic food supply fall under two heads, living organism and dead organic matter, commonly decaying. And on this basis we may divide the fungi into two classes, those which derive their nourishment from other living things and those which live on the remains of dead organisms. The latter, known as corpse plants or saprophytes, include the moulds, toad stools and many other fungi. But the first named group is that which at present interests us, since it contains the various groups mentioned at the beginning of this sketch, which live on or in the bodies of other living plants at their expense, and cause extreme weakening or even the death of the affected plants. Such fungi are known as parasites, and the plants they attack are called their hosts. This distinction between saprophytic and parasitic fungi is a very useful one, but no sharp line can be drawn between the two groups, since some fungi seem to be able to live either as parasites or as saprophytes, while it is probable

that very many pleomorphic fungi are parasites in some of their forms, and saprophytes in other stages of their life-cycle.

Finally we may notice the interesting fact that any given parasitic fungus is usually restricted in its capacity for harm to a single host plant or to a few closely related ones; though, on the other hand, closely related fungi may attack plants of widely different relationships. Thus the mildew of the lettuce and that of the onion are very closely related fungi, yet neither mildew can attack the host plant of the other, since the structural resemblances are few and the relationship remote between the lettuce and the onion.

From the above facts we may derive a few important principles for our guidance in attempts to avoid or check the ravages of fungi among plants cultivated for use or beauty. Since the mycelium of a parasitic fungus grows usually within the tissues of its host plant, it is too late to try remedies after a plant is once infected. It is true that a few fungi are superficial in growth, and a treatment may perhaps be found which shall destroy such parasites without harm to the host. But in most cases our aim must be to fortify exposed plants against infection by the timely application of protective solutions or mixtures, which shall prevent the germination of the spores which fall upon the plant so treated. Some progress has been made in this direction and some results have been reached which justify hopes of ultimate general success in largely avoiding the present enormous annual losses resulting from fungous diseases.

The treatment which now gives promise of most general applicability and efficiency is the spraying of the plants with a solution of sulphate of copper (blue stone) or with one of the preparations in which it is the important ingredient, known as Eau celeste, Bordeaux mixture etc. It seems very possible, too, that plants may be fortified against the attacks of parasitic fungi, or their susceptibility to such attacks be largely diminished, by special fertilization, for the purpose of introducing into the plant substances which, while not interfering with its growth, shall make it a less congenial soil for the growth of fungi. The line of investigation here suggested has not yet been followed out, although it offers an opportunity for chemo-physiological work which may yield important results. It is obvious also, that a vigorously healthy plant will resist the fatal influence of parasites far better than a poorly nourished one.

Much may be done, after a plant is too far gone to be saved, to prevent further spread of the disease, by removing and destroying the diseased parts. It is not sufficient, however, to throw the portions removed into the rubbish heap; the spores must be actually destroyed and this can be effectually done only by burning. A considerable number of fungi produce, in the plants on which they live, resting spores which ordinarily remain on or near the ground in dead leaves or stubble, survive the winter and, germinating in the spring, infect the new growth. In these cases the danger of a severe attack in the following year can be greatly lessened by clearing up and burning all such sources of infection.

Numerous instances can be cited of more or less common weeds or wild plants so closely related to certain cultivated plants that they are liable to the attacks of the same fungi, and so serve to perpetuate those fungi and to infect



BED OF PALMS AND LIKE DECORATIVE PLANTS

the related cultivated plants when growing near. Evidently, then, such plants should be carefully and thoroughly exterminated wherever they may prove a source of danger.

We may pass now to the application of the foregoing facts and principles in the consideration of a few particular fungous diseases.

THE BLACK SPOT OF ROSE LEAVES.

Actinonema rosae Fr.

In December, 1887, my attention was called by Prof. S. T. Maynard to a disease which considerably affected the leaves of roses cultivated in the Durfee Plant House, and which he desired me to investigate. The leaves presented all the external characters usual to the disease which examination showed to exist, namely, the so-called black spot, caused by a parasitic fungus known as *Actinonema rosae*.

This is probably the commonest and most troublesome disease of cultivated roses, whether of outdoor or greenhouse cultivation, in both Europe and America. It first appears in the form of dark discolorations of the upper surfaces of the leaves, which spread outward and often show a yellow band surrounding the dark spot. Often the discoloration begins at the tip of the leaf and spreads downward. The centers of the spot frequently become dry and brown, indicating the complete death of the tissue. In consequence of the attack of the fungus the leaves fall from the stem and may be replaced by a new crop if the weather be favorable. The loss of the functional activity of the leaves at a time when their work is most needed, not to mention the waste involved in producing an extra investment of foliage, must greatly weaken the plant and lessen the amount and vigor of its bloom, as well as seriously impair the ability of outdoor roses to resist the following winter.

The mycelium of the fungus develops in the leaf, chiefly just below its surface

layer or cuticle. From this principal mass threads penetrate deeper into the interior of the leaf and absorb its fluids for the nourishment of the fungus. Other threads grow upwards and produce the spores which, as they grow, make room for themselves by forcing up the cuticle, which finally bursts open, allowing the ripe spores to escape through ragged openings. The spores germinate promptly on a moist surface and readily infect fresh leaves. It is probable that this parasite of the rose is merely an imperfect stage in the life history of a fungus, whose perfect stage is very probably, or at least possibly, saprophytic and serves an important purpose in carrying it through the winter. In the lack of definite knowledge on this subject, however, we can deal only with the parasitic or *Actinonema* form.

In combating the disease it is essential to begin early, for leaves once penetrated by the mycelium of the fungus are irretrievably lost. All efforts must be directed toward preventing infection, by the application of some protective compound. For this purpose it is recommended that the bushes be sprayed shortly before the unfolding of the leaves, again as soon as they are fairly opened, and at intervals of three or four weeks until the flowers begin to open, especially after heavy rains which may wash off the protecting substance from the leaves, with blue water or Eau celeste, prepared as follows:

Dissolve 1 pound sulphate copper in 4 gallons warm water;
when cool add 1 pint commercial ammonia and 13 gallons water.

Any leaves on which the spots may appear should be promptly cut off and burned.

When the autumn is long and mild plants which have lost their leaves from black spot during the summer often put out fresh shoots from the terminal buds of their branches. This process exhausts the plant and lessens its ability to with-

stand the winter, and should be prevented by clipping off the terminal buds, leaving those lower down to make the next season's growth. There is no advantage in spraying the already affected plants in summer and fall, but the "spotted" leaves should be collected and burned as they drop, to prevent further mischief as far as possible.

JAMES ELLIS HUMPHREY,
Prof. of Vegetable Physiology, State Agricultural Experiment Station, Amherst, Mass.

Bed of Decorative Plants.

Our illustration is from a photograph of the large bed of decorative plants mentioned by Mr. Whittle in his article on page 90 of the October 1 issue.

It was to be seen the past summer on the grounds of Mr. H. S. Leach, at Saratoga. The bed is oval in shape, 30 x 20 feet in size and contained about 150 palms, agaves, pandanus, marantas, crotons, aspidistras and similar plants as a central group, encircled by a like number of fancy caladiums, the whole bordered by a double row of a white and green coleus. The tallest plants in the central group were from six to eight feet in height.

The bed was designed and planted by T. J. Totten, a florist of Saratoga Springs, to fill Mr. Leach's order for something handsome and at the same time different from anything his neighbors had. The bed was most satisfactory, and was beautiful all summer.

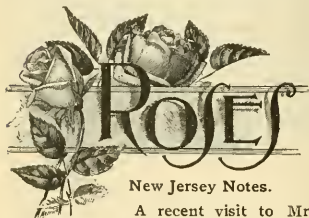
Cockroaches.

In the notes on Mr. Kimball's orchids I notice that Mr. Savage is very much troubled by cockroaches, and that he traps them in bottles with sweetened water. I think that if he tries my recipe he will find that he will not be troubled with them much longer.

At one time our propagating house was overrun with the pest, and do what we would, we could not get rid of them until the happy thought came to me to try sugar and paris green, and I found that it was an effectual dose for them. They were completely banished and we have not seen any live ones in that house since. It kills them all out in about two weeks. I have gathered up from fifty to one hundred dead insects of a morning, and when we tore out the benches a short while after we found hundreds of them that had crawled away and died.

I used one cup of granulated sugar and one tablespoonful of paris green, mixed it dry and laid it around on pieces of broken pots, on the benches, also under the benches, in fact any where that I thought they would be likely to run.

Flatbush, L. I. GEO. E. BENNETT.



New Jersey Notes.

A recent visit to Mr. Nash's nurseries at Clifton, N. J., was more than repaid by a sight of his Beauty houses. He has four houses devoted to this variety, comprising some 3,200 plants, and at time of writing they are in splendid condition, the finest the writer has seen for some time. The houses are the regulation style of sloping benches; it is quite noticeable that the plants on the higher of the middle benches are stouter and more vigorous than the others. The proportion of long-stemmed buds is in excess, a matter of much moment in producing good market flowers.

As for the question of blind wood versus flowering stock for cuttings, one bench to be seen here was planted with stock raised from flowering wood of the highest quality—the stems of first quality flowers. The plants were healthy, but had not made nearly the growth of most others—were much smaller. We must, however, remember that in most cases the wood from these stems was quite hard, and perhaps too ripe to strike very vigorously.

Among other roses at this place, Brides were especially worthy of note, showing a tremendous quantity of flowering wood; the same may be said of Bennetts. Mr. Nash does not grow any large roses except the Beauties, but he expects a good thing with them. Mermets and La France looked well, the latter breaking very vigorously.

At Mr. H. E. Chitty's place at Paterson, N. J., a wonderfully fine bed of La France was noted, which during the month of September produced some 2,000 blooms. In cutting the flower stem is cut down right to the stock, inducing more vigorous growth from the bottom. Wherever the shoots on these plants are tied down there is a continual line of breaks. These plants were in their second year; there seems little doubt that the La France and a number of other roses make finer flowers from the second year on. Some Bennetts seen here in their fourth year left nothing to be desired in either color or size.

EMILY LOUISE TAPLIN.

How to Ship Rose Plants.

In the first place comes the selection of the plants; this should be done with great care, we should pick good healthy plants of a uniform size as near as possible, so when they arrive at their destination there will not be some large ones and some small ones, because the large plants will make the smaller plants look smaller than they really are and therefore give dissatisfaction at the start. Next, the plants should be well watered, say two hours before packing so they may be thoroughly wet and also nicely drained so as not to be entirely mud. Of course good judgment is to be exercised at all times and the plants watered according to the length of time they are expected to be on the road.

Then comes how to pack. This of course entirely depends upon the state of weather and time of year, but whenever it may be, the object to be attained is, in what condition will the plants be when they arrive at their destination, for what does it matter to the consignee how fine the plants were when packed if they should get broken or damaged in any way in transit through the fault of poor packing, and this should always be borne in mind.

If plants are to be packed in the winter at a mild time when the temperature does not get below 20° frost, I think most any ordinary box will do to pack in, but if it is longer than three feet and wider than two feet, it should not be deeper than six inches in the clear, and if boxes were to be made expressly for packing I think a good size would be three feet long, two feet wide and six inches deep. Perhaps this one would answer well for 3 inch pot plants, while a box two feet long, eighteen inches wide and six inches deep would do for 2 inch plants. The box should be well lined with paper, most any kind will do, we might say three thicknesses of newspaper, then a thickness of cotton, then two or more thicknesses of paper. This will do for ordinary winter weather, of course if it is colder we should line our boxes accordingly and bear in mind also the part of our country the plants are to be shipped. The plants should then be well wrapped in paper and placed firmly in the box, but do not squeeze enough to break the ball or the foliage, and I think a little excelsior placed between the layers helps to protect the foliage and to keep the layers nearer level.

If plants are to be shipped in weather too hot to admit of their being packed tight, then of course to insure their traveling safely they have to be packed upright so as to allow free circulation of air about the foliage. In shipping a long distance it would be a great saving in express charges to have the box deep enough to allow the nailing of narrow strips over the top, so the box could be rated as a closed box, as on all open boxes of plants the expressage at present is double rate. If plants are to be packed as just stated they should have a strip the exact size to fit in the box and placed just above the ball, as often as two or three rows; a nail can be driven in to the strip from the outside of the box to keep it in its place. This prevents the plants from dropping out should the box get turned wrong side up.

In packing plants in an open box, should the neck of the plants be quite long they can be placed two tiers high, so that the ball of the upper tier can rest on two balls of the lower tier between the plants, and they will thus travel well. But if the plants have a very bushy appearance with a shoot or shoots quite close to the ball I would advise only one

tier in the box, as two tiers would be apt to injure the young shoots.

If plants are to be shipped across the country to the Pacific Coast, perhaps in consideration of the high express rates, it would be best to wash the soil nearly off the roots, wrap wet moss around them and dry moss or excelsior around the foliage, wrap in paper in medium size bunches, say fifty plants to each and place firmly in box made light as possible consistent with strength.

If to be shipped across the ocean the box should be quite strong with holes bored in the sides to allow as much air as possible to pass to the foliage, the balls can be wrapped in wet moss to prevent their drying out, then place a row against the end of the box with a strip against the edge of the ball to keep them in their place, the same process can be followed at the other end. Each box thus shipped should be plainly marked, "Please do not place near boiler," as many a fine case of plants has been ruined on steamships.

An invoice should always be sent with the plants. I think it a good plan to send a duplicate invoice of the number of plants in the box with the plants, so the person who unpacks them knows exactly how many there are and the number of each variety before he begins and it will help him very much. The original invoice of course can go by mail and will probably reach the consignee before the plants do. I once read an article on "business methods," and it was there recommended to send an invoice two or three days before the plants were shipped, but I do not think it a good plan as in our business we do not always know just how much of the order we can fill with their respective sizes, varieties, etc.

Upon the receipt of an order for plants I would recommend the immediate shipment of same (unless of course there are directions to the contrary), as it is a characteristic of American people when they make up their mind to have a thing they want it immediately, and I do not think florists are any exception to the rule, so the sooner the order can be shipped the better satisfaction it will give. If it can be shipped the next hour after received so much the better.

How may we ship? I will say most decidedly by express; although the charges are very high, I think it pays far better in the end and certainly gives better satisfaction. There may be times when it will do to ship by freight a short distance, but as the general thing express is the proper way.

LYMAN B. CODDINGTON.

[Read at a meeting of the New Jersey Florists' Club of Summit, N. J., September 19, 1899.]

Rose Duchess of Albany.

No rose of any class has so suddenly bounded into favor in the New York market for many years as this new candidate for patronage. Its lovely bright clear color and sweetness combined with a good shape, size and stiff stem all help to make it at once the ideal rose with all who see it.

This variety is a sport from La France, but is far superior to that old favorite in every way. Under the same conditions in every particular, it will produce larger flowers and more of them, of a clear color at least ten shades deeper than La France and without the pale tint on the back of the petals as in that variety. "Albany" as it has already become known (without the handle), is the favorite with all to-day and takes first honors with all hands.

JOHN N. MAY.



NEW POLYANTHA ROSE, CLOTILDE SOUPERT

Pale Color in Perle Buds and Others.

The cause of this is largely due to continued cloudy weather in conjunction with either extreme moisture or dryness at the root. In very cloudy weather, particularly at this season of the year, if the plants are on the dry side at the root they very rarely show it on the surface of the soil till the sun begins to shine again, and under such circumstances plants often receive a partial check, and the flowers or buds being the most sensitive part of the plants are the first to be affected thereby. On the other hand if it should happen that a little extra water should be given just before a

cloudy spell sets in the same result would follow, as the plants would have more moisture than they could properly utilize, and it would first affect the buds. This often occurs at this season of the year when the plants have in reality more food than they can properly assimilate, from the fact that the roots have not yet fully occupied all the soil surrounding them. In other words the plants have too much food to digest and the flowers become slightly bilious in consequence.

It may appear somewhat confounding to some to lay the blame for the above to two very opposite causes, yet I have seen it occur frequently under either condition, and it is here as in all other

matters appertaining to the business that the small details are often the most important. Plants like animals need constant and regular attention and should never be overfed or kept hungry for any length of time, should be kept clean, have all the pure air possible consistent with the conditions most suitable for their full development, kept in a nice growing atmosphere—not hot enough at night to make the buds come small or weak in the stems, or so cold in the daytime as to give them a chill and cover them with a blanket of mildew.

As the days shorten it will pay the grower to remember that to obtain the best results from roses a night temperature of 56° to 58° for most all varieties of teas suits them best, and as soon as the sun begins to shine on the house in the morning and the temperature rises to 66° or 68° at most, begin putting on air, very little at a time, till by the middle of the day with a bright sun a liberal amount of air will be circulating all through the house. With the ventilators properly attended to 80° to 85° will never hurt roses in the middle of the day from bright sunshine, but do not attempt to get over 70° by fire heat under any circumstances by day. Water early in the day, this will allow all surplus moisture to dry up before night and avoid much trouble with black spot. Where Bennetts are grown, if desired the night temperature may be kept at 58° to 60° by day as above.

JOHN N. MAV.

New Polyantha Rose Clotilde Soupert.

Our illustration shows a few blooms and buds of this new polyantha which so favorably impressed our correspondent E. G. H. when abroad, and which he described on page 62 of September 15 issue.

A Chicago florist received a dozen small plants in 2-inch pots about June 1. They were grown on and planted out on a bench about September 1 and are now 12 to 15 inches high and blooming very profusely. The flowers are large, very double and well formed, round at first but flattening as they expand; the outer petals are pearl white shading to a center of fine rosy pink, both pure white and pink flowers appearing on some of the plants.

The grower of the plants seen states that the flowers are very persistent and thinks that they will be of considerable value to those who retail the flowers they grow, while its great and unquestionable merit is for bedding and as a pot plant.

If you have anything to sell to florists, nurserymen or seedsmen, advertise it in the AMERICAN FLORIST and you will find a buyer if it is a salable article.

If you have any trashy stuff you want to sell don't advertise it in the FLORIST, but if you have a good article and want to sell it at a fair price you can find buyers by advertising in these columns.



New Jersey Notes.

H. E. Chitty, of Paterson, N. J., is much interested in carnations, as may be inferred from his communications to the *FLORIST*. At time of writing he has a bed of Grace Wilder which are as exceptionally fine in the way of carnations as Mr. Nash's Beauties are among roses. Viewed from the end of the house they present an apparently solid mass of buds and flowers, as deeply colored as this variety can be. There are no pale, off-color flowers to be seen, nor are they irregular in shape; in fact, the bed is as near perfection as one could wish. There is no other pink carnation that can take the place of Wilder; it is always called for, though very often during the winter we see a good many off-colored flowers.

Among whites, Mr. Chitty's Hinze's White are certainly fine, good color, good shape and most prolific, yet compare these flowers with L. L. Lamborn, Silver Spray or Silver Lake and they are decidedly yellow. Silver Lake is, I believe, of recent introduction; this is its first trial with Mr. Chitty. It is somewhat in the style of Silver Spray, and is noticeable for its extreme whiteness. Lack of experience prevents any further testimony as to its excellence.

West End is a new carnation from Massachusetts, the color is strikingly like the American Beauty rose; its introducer says the tint is identical by artificial light. It looks like a very nice thing; Mr. Chitty is making his first trial of it this season. Much the same color, but lighter, is W. P. Simmons' Tidal Wave, a very fragrant variety.

Mrs. Carnegie, white with deep pink stripes, seems about the most popular of the striped varieties. Many—in fact most—of the fancy carnations find slow sale in the New York cut flower trade; they are called for in small quantities, but never compete with self-colored varieties.

Among crimson carnations Clifton and Orient are certainly the best. Crimson King is now quite out of date, because though very prolific, the flowers are literally without stems. Anna Webb is a good color, but it does not last; in fact, all crimson carnations are deficient in this quality. Orient is the most lasting and a good flower, but Clifton is usually larger.

Mr. Chitty never plants his carnations outside two years in succession in the same place. A good deal of his success may be imputed to this, and his system of pruning, mentioned on page 86 of the *FLORIST*, certainly does result in wonderfully stocky, vigorous plants.

EMILY LOUISE TAPLIN.

Soils for Carnations.

Mr. Swayne at the Buffalo convention stated that heavy soil was preferable for growing carnations in during summer.

My experience fully coincides with that of Mr. Swayne. Yet the past summer teaches the lesson that this statement also must be modified. The older we grow the more do we become convinced that there must be an extensive latitude given to all our "rules" for the

growing of plants. Observation and experience teach us that rules always have exceptions. We may have two houses planted to one variety of roses—treated exactly alike—yet seldom would both be seen exactly in the same condition.

The ground here upon which carnations are grown is a clay loam, with blue clay sub-soil. Carnations growing in this soil usually find it congenial and generally become very fine plants when the time arrives for lifting and planting in the greenhouses in the fall. But this summer's experience in regard to the weather has proved that heavy soil here is not good for carnations during prolonged wet weather. This soil is exceedingly retentive of moisture; and during a dry season if the soil receives frequent hoeings the plants thrive well, never showing signs of suffering in seasons of drought. But this year the continual rains have made the ground absorb and hold water like a sponge, to such a degree that the carnations were growing during most of the summer in ground not much drier than a mud puddle.

Naturally the plants succumbed under such untoward conditions. Growth nearly ceased in those which lived, and each week witnessed the total collapse of many. So that in order to save what were left it was decided to take up the living plants and remove them to the place prepared for them in the houses. This was done during the second week in August. The result has been entirely satisfactory. The plants have quite recovered from their weakened condition, are now full of buds and showing promise of good things to come for the winter.

A rather limited observation of other florists' carnations shows that these grown this year in light soil are in the finest condition. Those grown upon the sandy soil of Long Island look splendid, and are considerably better than those found here.

No doubt if heavy soil is thoroughly drained such disastrous results as stated above will not follow. For in that case the water would not be retained by the soil, and the roots of the plants have a better chance to live and do their work. Whether these losses upon heavy soil are general this year is not known to the writer. Perhaps the experience may be different in those localities where there is a heavy loam with other sub-soil than clay.

But there also seems no question that when the carnations are placed in the houses they will continue more healthy in a soil somewhat lighter than that which is here recommended for summer growth. A soil that is friable and through which the water passes readily, an admixture of a sandy soil with heavy loam answers the purpose. The best carnations noticed last winter were grown in such a soil.

Burned sods, if from heavy soil, will prove to be very desirable. These, when thoroughly burned, can be incorporated with soil not so treated in equal proportions, and will be found extremely beneficial, not only in keeping the soil sweet, but in imparting a vigor of growth and a richness of color that no other ingredient ever gives.

Sods to be treated in this way should be dug in late summer and stood on end, if wet, to dry, for the drier they are the better they will burn. A stack of wood piled evenly until it attains the dimensions of three or four cubic feet, should next be prepared. Sods may then be

stacked up the sides and over the top of this wood, the ends of the pile being left open in order that when the wood is lighted the fire may get a good chance to burn. When this is well under way close up both ends with sods and heap as many more on the top as the desire is to have burned. The heap should be left untouched for two or three weeks, during the whole of which period the sods will continue to burn.

Any one once trying soil prepared in this way will be pleased with the result from its use. For it is not only desirable for carnations and roses, but for all pot plants.

ALFRED E. WHITTLE.

Seasonable Notes.

CUTTINGS.

The culture of the carnation having become so extensive, and its use now entering so largely into our floral calculations and arrangements, it is of the utmost importance that we avail ourselves of every point likely to assist us in the attainment of success. With this end in view growers whose stock is now comfortably housed and flowering in a satisfactory manner, and who realize the necessity of being to the fore, will by the time these remarks reach the readers of the *FLORIST* be keenly on the alert for cuttings for next year's crop.

My experience is that if carnations are required for summer flowering, in order to secure the best results, the cuttings should be put in the sand in the month of October, and the earlier in the month this matter is attended to the better; if good stout cuttings are secured and placed in a cool airy situation during the first half of the month they will be well rooted and ready to transfer to small pots in December.

In a month the small pots will be filled with roots, at which time my practice is to draw the center out of each plant and transfer to 3½-inch pots; at the same time the young plants begin to make new roots in the larger pots, they also develop a circle of young shoots around the base of each, and if the temperature is kept low, say not over 50°, they will be sturdy plants ready to move out to a cold frame in March, and planted where they are intended to flower as soon as the weather will permit in April.

From my experience of the past two seasons I feel prepared to say that if some good free flowering white variety of carnation is used for the purpose, and treated as above recommended (varied of course to suit locations north or south of this), that it will pay largely, and will be found such an immense improvement over the white asters that those who try the experiment will be surprised that they had not done so before.

If early flowering is the object, and if the plants have five or six shoots no further stopping will be necessary, but if rotation or succession is required they can be stopped in batches to suit, remembering that if the plants are strong and the centers of the shoots drawn out in May, everything being favorable they will be pretty certain to flower in July. I may further add that if carnations intended for summer flowering are planted where a supply of water is at command the prospects of success will be considerably increased.

For the main crop of carnations December is the time to put in the cuttings, of course I am ready to admit that good plants may be grown from January, February, or even March struck cuttings,



Fig. 1.



Fig. 2.



Fig. 3.



Fig. 4.

CARNATION CUTTINGS

but the chances of success recede with and in proportion to the season; I therefore advise that if substantial success is looked for, secure good stout cuttings in December. Go way down near the base of the plant for them, do not be satisfied with weak spindly or flowering shoots, if you do disaster and disappointment will surely follow. Another great advantage resulting from December cuttings is the fact that there is abundant time for them to make good roots in a low temperature, which in my opinion is one of the most important features of success in carnation culture, for while we thoroughly understand that carnations may be forced with impunity, especially the white varieties, it must be remembered that every degree we add to the temperature over 50° or 55° is at the expense of the plant, and cuttings taken from plants before will be very far superior to cuttings taken after the plants have been subjected to the high temperature, and as the forcing is most likely to occur just before the holidays, by previously securing the cuttings we do so before the plants are enfeebled by excessive heat, and secure all the advantages to be gained thereby.

By pencil sketches I have endeavored to show what in my opinion constitutes the different grades of quality in carnation cuttings.

Fig. No. 1 represents a cutting of the very best description, the outside foliage may be shortened a little without injury to the cutting, and the process would allow the cuttings to be placed closer together in the sand, and the center may be drawn out of such a cutting either before or just after it is rooted, the beauty of such cuttings is they are sure to root and when rooted you have a plant of the best kind at once.

Fig. No. 2 represents a cutting such as we are sometimes obliged to be content with, because carnations do not all grow alike, Grace Wilder, for instance, rarely gives such cuttings as No. 1, in which case we do the best we can and take the best we can get, the redeeming features of the finer growing sorts, however, is their tendency to be firm, compact and well developed, resulting generally in

good plants in less time than is required for the strong growers.

Figs. No. 3 and 4 although not fit for cuttings, are often used as such, their use, however, should be held in universal condemnation, because no matter how good roots they acquire in the sand, as plants they are utterly worthless, and the selling of such as rooted cuttings is simply an outrage.

Last spring I received quite a number of plants of the new variety Tidal Wave, also some plants of the new white variety L. L. Lamborn, and I think nearly every plant of the two lots must have been struck from cuttings such as I describe in No. 1. Nothing could be more satisfactory (I am in hopes of being able to write about these and other sorts later in the season), but I received a thousand rooted cuttings of another sort near the same time, which seem to have been grown from such cuttings as shown in Figs. Nos. 3 and 4; there may have been a few among them as good as No. 2, but they were exceedingly scarce. As soon as received, this lot was potted into thumb pots, and almost directly they began to throw up flower buds, and the buds being continually cut off induced them to throw up many more with once in a while a miserable little shoot; many of them died before planting out time, and many more died through the summer; at lifting time although they presented an appearance perfectly miserable I still lifted some of what was left, and the present appearance of those is dejected and woebegone in the extreme. I wonder if any brother florist had a like experience during the past year?

H. E. CHITTY.

Paterson, N. J., Oct. 21.

Caterpillars and Greenfly.

Mr. May, in his instructive article upon the growing and forcing of mignonette, which appeared in the *FLORIST* of September 15, speaks of the depredations of caterpillars, and mentions as a preventive, the placing of mosquito netting over the ventilators of the house in which the mignonette is growing.

No doubt this is a radical preventive,

but even if it should not be done, we are not left to the expensive labor of picking by hand the caterpillars from the mignonette seedlings.

Formerly it was my custom to carefully look over, every morning, the mignonette for caterpillars, and remove them by hand, as the preventive by the netting had not been brought to our notice. But as Mr. May says, it was slow work; not only expensive, but never very thorough, and therefore necessity compelled experiment.

Having some of Hammond's "Slug Shot" on hand, the thought occurred that it might prove efficacious in keeping the caterpillars away if dusted on the plants. This was done, and proved to be successful—so successful that it has been used ever since. Two or three dustings are all that are required to keep the plants from injury. The "Slug Shot" does not injure the mignonette, but, on the contrary, appears to quicken growth.

White hellebore is another remedy that can be used with similar success, not only for the mignonette but also to destroy the caterpillars that sometimes are so troublesome upon Jacqueminot and other hybrid roses which are planted inside the greenhouse.

It is claimed for the "Slug Shot" that it will destroy aphids, but experiment with it for this end, did not produce the desired result.

Probably every florist, at times, finds that the remedies proposed for the destruction of greenfly, other than burning tobacco stems, prove inefficacious. Especially is this so when precautionary measures have been neglected, and greenfly has got a strong foothold.

It is true that this pest should never be neglected—an "ounce of prevention is always better than a pound of cure." But we are all human, and the best of us sometimes get caught napping. When this is so, throwing stems down in the paths, or evaporation of water in which tobacco stems have been placed, will prove of no avail, and recourse will have to be had once more to the old practice of smoking. Generally with the result that all the life is taken out of the flowers

of our high-colored roses for some time afterwards.

Yet there is a way in which houses may be smoked with tobacco, and little if any harm be done to the flowers which have to be cut from the roses growing in them. This way is simply to smoke lightly and smoke often. When it is necessary to smoke a house of roses, let the first smoking be as light as possible. Continue the process for two more nights, and on the last night let the fumigation be somewhat heavier. By this method the fly will be killed and the roses receive comparatively little damage.

A. E. WHITTE.



Very Early Chrysanthemums.

I am again disappointed in those varieties which flower in August and very early in September. It does seem as though they will not ever be satisfactory—I mean those varieties we now have to work with. The question is do we want chrysanthemums before the 15th of September? It seems to me that before the middle of September they are not wanted or have but little appreciation. I can remember when a boy that the old Scarlet Gem was used as a bedding plant among other things in connection with Ageratum Mexicanum and yellow calceolarias and the old blue lobelia.

The only varieties that have been at all satisfactory are Golden Fleece and Pierre Verfelt, both pompons, the first a bright yellow and the latter bronzy yellow and brown; these were passable the first week in September. Of the varieties which were in flower the first half of October and were acceptable, appreciated and beautiful, are the yellow and white Desgranges and M. E. Nichols, a lovely shade of pink with medium sized flowers of nearly the same tint as the La France rose—unfortunately many of the flowers come one-sided, but if the thinning is not began too soon there is still enough perfect flowers left. It is a healthy, strong and free flowering variety. This variety is known also as "October Beauty" but the right name is M. E. Nichols, and it should be corrected.

Another very pleasing kind introduced two years since is Eleanor Bares, with tawny buff and pink flowers of good size, very free and very healthy. I must also say a good word for Spaulding's Harvest Queen, a good sized white flower of fine habit and robust health. Lambeth is also a good white but rather uncertain in growth. Delaux's Triandartu promises well, as does Blanche Precoce. Of older kinds, Fleur Parfait, Alex Dufous, Petit Frise, Jas. Salter and its white sport Lady Selbourne. Mlle. Lacroix is beautiful, and now we have a pink sport from this very beautiful variety.

La Vierge and La Neige are both failures with me this year as is also that very beautiful white pompon La Desree. Other varieties which were in flower the third week in October were the old Jardin des Plantes or Mme. Damage, a white pompon; Chevallier Damage, a grand yellow, and the very old yellow Annie Salter; Gloriosum and Triomphante, be-

sides some newer kinds which I am growing for the first time.

Exhibition plants and flowers will require more attention each day. Beware of mildew and kill at once with sulphur in some form. All very dark reds, browns and crimsonous as soon as the first rows of petals are unfolded should be shaded from the bright sun to obtain their true colors. A way to shade will suggest itself to those who are determined to win.

In packing plants for exhibition to carry long distances remember always to pack as close together as possible. It is best to pass around each plant a string so as to draw the heads close together to prevent whipping which always occurs where flowers are loose; the fact of their being snugged up prevents oscillation.

When the plants are unloaded and before staging it is an easy matter to cut the string and press out the stakes to their original positions.

JOHN THORPE.

Cut Flowers for Exhibition.

The shipping of cut flowers to exhibition points is always attended with anxiety and to arrive in perfect condition requires great care. Those having boxes made expressly for the purpose do not require to be prompted, but the amateur or those who are beginners and have not complete outfits will do well to take the following hints:

All flowers should be cut and placed in water at least twenty-four hours before shipping. Flowers that are opening too quickly should be cut, if even a week before the time, with long stems, placed in a cool dark shed or cellar where the atmosphere is dry. A piece of the stem should be cut off about every third day and the water changed.

In packing wrap each flower carefully in tissue paper just tight enough not to bruise. They should then be placed in either boxes or baskets in tiers so that they do not press on each other. In boxes strips should be nailed far enough apart so as to allow the flowers not to chafe, the stems to be held in place with other strips, using damp paper as a packing between each layer of stems. The same method to be carried out in basket packing, except that strong string is to be used instead of wood strips. Do not allow the petals to become wet during packing.

In staging the flowers all those with long and drooping petals will require to be gently shaken before placing in position, remembering always to make a new surface at the end of each stem by cutting a piece off before placing in water on staging.

Labelling should be legibly and neatly done, placing the names conveniently in front of each flower.

As to the arrangement of the flowers the larger flowers should be at the back, the smaller ones to form the front rows.

J. T.

The National Society.

Unfortunately the society is not in a position to assume any control over exhibitions this year. But it will be in order to suggest a few points as to the certifying of and the recognition that should be given to seedlings or new varieties from sports. The requisites should be: First, distinctness from existing varieties; second, suitability for either exhibition blooms, specimen plants, pot culture for market, or cut flowers for sale; third, new types and new colors; fourth, though not

last, vigorous habits and healthy growth. No certificates should be awarded unless four flowers are shown; a part of the plant showing at least ten inches of stem with leaves should accompany each variety, or what is better a plant or plants in not less than 6-inch pots would be more satisfactory.

It should be borne in mind that certificates can and should be awarded to plants and flowers for the purposes they are best adapted to. It is well known that many of our very best exhibition varieties shown as cut flowers are fit only for that purpose; for instance, Mme. C. Audiguier grows to the height of seven feet, and the flowers of Soliel Levant droop so on the plant as to positively hang their heads, yet they are invaluable on the exhibition stand; Gorgeous is a magnificent pot plant, but the flowers are of no use on the exhibition table.

One thing which has been and must be admitted is this: Those who have been interested in the dissemination of the chrysanthemum have let their discretion interfere with their judgment. In other words, they feared the child would die from lack of inanition.

But that time has gone by and there is no further any reason for anxiety. We can now stand and ask for the best only, so that from this time there need be no fear that what is done in the way of encouraging new varieties will not be done rightly and well.

JOHN THORPE.

EARLY OCTOBER FLOWERING CHRYSANTHEMUMS.—There are 25 varieties of chrysanthemums flowering October 1st to 15th, grown in Chicago, of which the following are the best, arranged in the order of their merit. In making this list I have considered what I see and hear in visiting florists in addition to my own growing. Mary Edd, small white; Blanc Precoce, white; Gorgeous, yellow; Mons. E. Nichols, Mons. Neville; Lyon (pompon). The following new comers are very promising, and blooming October 1 to 5: Malbran, M. C. Souchet, Leveque and Capucine. There is ten days or more variation in time of flowering with different florists, generally pot grown plants blooming earliest.

Chicago.

JOHN LANE.

New Gladioli.

Something like a "sensation" was experienced lately when Messrs. Veitch exhibited, on behalf of M. Lemoine, some new hybrid gladioli, raised, we believe, by M. Max Leichtlin in the first instance, between G. Saundersi and G. gandavensis. G. Saundersi is comparatively hardy and has scarlet flowers, spotted with white on the lower segments. President Carnot, one of the new race, has very broad open flowers, the perianth segments spreading, bright crimson flaked on rose, the two lower ones of the inner series have a yellowish-white blotch at the base, mottled and streaked with crimson. From the brilliant coloration, the flat form of the flowers, the remarkable vigor and hardness of the strain, there is no doubt these gladioli will satisfy the public taste and introduce a new element of beauty into our gardens. President Carnot is shown in the center of the group in the illustration, the flowers from which the drawing was made measuring five inches across. On the left hand side is the variety Andre Chenier, of Lemoine's hybrid spotted strain; the colors are cream flushed with pink, with the two lower inner segments purple, with golden-yellow apices, which



NEW TYPES OF HYBRID GLADIOLI.

render it very conspicuous. The third variety shown is Alsace, of the same section as the last, the colors being pale buff and purple; both these flowers are much cupped. The superiority of the new Nanceianus type is evident.—*Gardener's Chronicle*.

Long Island Notes.

BY WM. FALCONER.

THE WHITE COSMOS BIPINNATUS is a lovely flower. We have it in quantity out of doors, also in pots in the greenhouse, and the indoor flowers are larger, finer and more regularly perfect than are those on the outside plants.

THE YELLOW IPOMÆA made a very good growth of foliage all summer, but the vines only attained a height of some four or five feet. And it didn't blossom, in fact, I am inclined to think it is shy-blooming in cultivation anyway, and especially so when planted outside.

SEDUM SIBERDII both green and variegated-leaved are very neat and pretty hardy plants not uncommon in cultivation as bracket or basket plants, but they are perfectly hardy and live along year after year. They are now (October 17) in full bloom in the open border where their pink-purple flowers are a cheerful addition to our supply of blossoms at this season of the year. If you look in your Dictionary of Gardening you will find that this species blooms in August, and that *S. spectabile* blooms in September. But the truth of the matter is *S. spectabile* blooms in August-September, and *S. Siberdii* in September-October.

OF ECHINOCACTUS CANDICANS an immense consignment of beautiful plants in fine condition has been received by an eastern florist.

SOLANUM JASMINOIDES has grown more and flowered less this season than usual on account of the extra wet summer. On a trellis in sandy land and a warm sunny place it blossomed abundantly with me.

DWARF CANNAS.—I have just cut over ours, lifted, divided and planted them very close together in a warm frame to keep them there over winter. On the 23d of May last we had a consignment from England; the plants were one-eye stock in pots. After hardening them off I planted them out in good ground, and now have lifted and divided them. Two plants of Louis Thibaut broke up into 10 and 17 pieces respectively, and the other kinds varied between 5 and 15 divisions, and these divisions are good well rooted parts. This shows how easily and rapidly they can be multiplied. Adrian Robine has fine crimson foliage, but grows too tall and its flowers aren't good enough to save him from the rubbish pile.

MUSA ENSETTE.—If you get a hundred or more seeds now and sow them in a warm greenhouse, you can get up a stock of splendid plants for spring sales. Advise your customers to plant them out in an open and sunny but warm and sheltered place, and in rich, deep, porous soil and give them abundance of manure and water. The plants grow immensely and give me a great deal of satisfaction. And they grow so fast that I have resolved to stop keeping over old plants, and just get up a fresh batch from seed every year. This saves work and room.

CHRYSANTHEMUMS are grown in large quantity by Long Island florists, and, in many cases, in provisional houses. These houses are temporary affairs made up of the unoccupied sashes from the "jack"

houses or frames. Where convenient the plants have been grown along all summer planted out in their blooming beds, and in these cases finer flowers, stiffer necks and better foliage are the rule, only the plants get pretty tall some times. By the time the sashes will be needed for the roses the chrysanthemum season will be past. And where chrysanthemums are planted on benches in low roofed permanent houses I see an immense number of violets in pots in cold frames being grown to succeed them.

AS REGARDS VIOLETS our florists are very particular to pick off every leaf just as soon as they notice the least speck of disease-spot on it, and they tell me this is the only way in which they can hope to secure a good crop of flowers. Of course where the disease is very severe violet growing is abandoned altogether for a few years.

ON ACCOUNT of the disease I have given up growing violets for a couple of years. But I grow a lot of hardy garden kinds, and I find that *V. cucullata* becomes diseased, often quite bad, and right scattered among it *V. Patini* seems absolutely disease-proof, but then it is of no use for cut flowers. And the disease doesn't seem to affect *V. canadensis*, *V. pubescens* or other branchy sorts, or *V. pedata*. The Czar, although it suffers less than Marie Louise, also gets badly "scorched."

DWARF DAHLIAS UNDER COVER.—At a florist's I visited the other day I found quite a greenhouse filled with white dahlia in bloom. The dahlia (no name) flowers were smallish, pure white, very double and abundant, and under the glass they seemed to open bright, clean and perfect. The plants were two to three feet high, bushy and free, and they had been put out in the open ground in a bed and somewhat close about midsummer. And it was over this bed that a temporary greenhouse structure had been set up; it was made of unoccupied sashes as one would a chrysanthemum house. This plan of having a houseful of white dahlia in bloom for a few weeks preceding the chrysanthemums impressed me as being something worth imitating.

RHUS COTINOIDES is the American prototype of the Venetian sumach, and so rare that I began to regard our specimen as unique in cultivation. But now a southern nurseryman comes forward with over a thousand young trees for sale.

BUDDING DOGWOODS.—Andrew S. Fuller writes: "I find that the dogwoods take as readily by budding as the apple or pear."

A VIOLENT wind and rain storm early in September stripped many of our trees and shrubs and prostrated things generally. Now several spiræas that were in the teeth of the storm have started into fresh growth and scattering bloom. This is bad for the plants.

THE PERENNIAL GAILLARDIAS—the "hybrid" and *grandiflora* section—are still yielding a few good handsome flowers.

MAXIMILIAN'S SUNFLOWER is the latest sunflower that we have in bloom. It is a perennial, quite hardy here and in best bloom during the first three weeks of October. The flowers are medium sized, bright yellow, very showy and closely set along the stems near the end. It likes rich ground, shelter from rough wind and to be lifted and replanted every year, or at least every second year. Although it does fairly well in the same spot year after year it is only when re-

planted every year that its greatest glory is exposed.

THE LOBLOLLY BAY (*Gordonia Lasianthus*) and *Franklinia* (*G. pubescens*) give me a good deal of satisfaction in summer and fall on account of their large white blossoms which somewhat resemble those of single camellias. They are a trifle tender as far north as this, but with a little care they pull through nicely. Further south they are lovely. I can not imagine anything prettier than neat stocky gordonias in bloom in 6-inch pots, and they blossom freely when only quite small plants.

IF IPOMÆA RUBRO-CERULEA would only bloom more freely what a magnificent morning glory it would be, but it is too shy for anything.

LONICERA HECKROTHI is a new and everblooming vine honeysuckle that I came upon at Hoopes Bros. & Thomas' last fall. It was an accidental discovery in a West Chester garden and its origin is unknown, but it is probably a self-sown seedling from the trumpet honeysuckle and the result of a cross with some other garden sort. It is a thrifty vine of the semperflorens habit and a most copious bloomer, and it keeps in bloom all summer long. The flowers are in terminal bunches, deep dull red and yellowish. Just when I was at the nursery there they had an order from a Boston landscape gardener for every plant they could spare of this honeysuckle, but I secured a couple. And I have been extremely well pleased with it. In early summer the flowers were ruined by aphides in the same way as American and European sorts are, but after midsummer they came as clean and free from insects as Hall's or any other Japanese honeysuckle, and in beautiful profusion.

SALVIA PITCHERI is the finest blue flower we now have in bloom. It is not quite hardy here. Easily gotten up from fresh seed.

THE GLORIOUS "SUNSET PLANT" is too glorious at 50c a plant when it can be gotten up so easily from seed, and seed is retailed in New York for 5c a packet. I have grown some of the western sphaeralceas for a dozen years and now have scores of plants of this glorious novelty. They are very hardy and long-lived and last in bloom most all summer, but there is nothing striking about the plant or its blossoms; the flowers are small and of a very poor color. Among cut flowers of no value whatever, and precious little among border plants.

THE YELLOW AMARYLLIS (*Sternbergia lutea*).—One of the prettiest things I saw at Queens the other day was several hundred of these in full bloom. They were planted in a cold frame. They are not large plants like an *Amaryllis Johnsonii* or *A. alula*, but small plants more in the style of a zephyranthes; and their flowers are of the purest yellow and in size like an overgrown crocus. But they are seldom seen here in cultivation and for this reason: We don't usually get our bulbs till September or October, and at this time these yellow amaryllis bulbs are soft and shriveled and sprouting. September and October are their blooming season, they are then in full vigor; the proper time to plant them is July. They are hardy in warm sheltered places, but require a long open fall to give them a good period of growth, hence it is that they are more amenable to cold frame than open garden cultivation.

WILD ASTERS.—My old companion-inspades F. W. Burbidge (the recently

anointed M. A. of Trinity College, Dublin), writing to me the other day says: "But best of all hardy plants now in bloom are the dear old Michaelmas Daisies of our childhood's days, the star flowers of your land. They are in masses among rhododendrons and other shrubs, and are most lovely, free and natural, harmonizing in color with the grey Scotch firs and the blue haze of the distant downs. As cut flowers or for massing and grouping near old country houses these asters are perfect and the best of them will have a great future here, so make a good selection in time." Yes, but we don't call them "star flowers," we simply call them wild asters or daisies. Starwort, one of Dr. Asa Gray's names, must be recognized, still the people don't use it. We call the little *Trientalis* of our woods the "star flower." Of course the word aster itself warrants the use of the name star flower, still the people do not adopt it.

MOONFLOWERS AGAIN.—The common moonflower plants sold by florists and *Ipomoea bona-nox* grown from seed (dark colored), and side by side are indistinguishable. The plants from cuttings come earlier into bloom than do those from seed, but after both are in full growth I can not tell them apart. Both strike freely from cuttings and neither has, this summer, shown any inclination to produce seed. On the other hand *Ipomoea grandiflora alba* (as *grandiflora* itself is white, what's the sense of adding on the alba?) from the New York seed houses, I. Childs from Childs, and the white seeded moonflower raised from seed gathered for me in the wilds of Southern Florida, are all one and the same thing, at least as growing here side by side they show no difference. All three display a more luxuriant growth than *I. bona-nox*, and their blossoms are a fourth larger and they have larger foliage. And they bear seed abundantly, but I fear the seeds will not ripen well in the north, at least this is my experience. It is curious that although there is no doubt whatever of the fact that this white seeded form is indigenous to Florida, it is not mentioned by Chapman, Gray, or any other of the leading American botanists, so far as I have seen, and there is no record of it in the Harvard Herbarium.

Steam Versus Hot Water for Heating.

BY JOHN BURTON.

[Read before the Florists' Club of Philadelphia, October 1, 1889.]

What are the advantages of steam over hot water; or hot water under pressure for greenhouse heating?

When accepting the appointment to read a paper on this subject I had no idea that I could tell you anything new, but might possibly retell some of the things already known to those having steam in practical use, and things that must have been read of by all interested in greenhouse heating. For some time after using steam I was doubtful if it was any better than hot water, but this feeling I think was caused by my expecting too much. The steam men had painted in such glowing colors the advantages of their system, the allround saving of labor and fuel, the low first cost, etc., that when I found the cost of putting in about the same and the saving of coal doubtful I was disappointed, and am reported to have said "I would toss up a penny to decide which to use, hot water or steam." But now I think I could decide without the assistance of the penny.

In my opinion the advantages of steam

are: First, and probably the most important, the ease and quickness with which you can put it on or take it off. This I put first because we all know that plants require a certain temperature, or to put it more plainly we know the importance of maintaining an equal heat in a house; to do this with hot water requires great judgment and in some instances is impossible. You must commence in the afternoon and make up your mind an hour or two ahead what heat will be required, and if the sun is shining, with the prospects of a cold night, you will either have it decidedly too hot while the sun is on the house, or as much too cold directly the sun goes down, and the latter I think happens pretty regularly in the kind of weather I have mentioned above. But probably the worst effects of this is felt in the morning when the sun comes out after a cold night; the house is covered with ice causing you to fire freely until it is melted by the sun heat, when you at once get the heat from that source into the house, which with the pipes still very hot, makes the temperature rise very rapidly; you can not cool off the pipes, so of necessity put on more ventilation than is desirable so early in the day.

With steam these difficulties may be avoided to a great extent. In the afternoon you can store up the steam to a pressure high enough to fill at a few moments notice all the pipes required; if you make too much it escapes through the safety valve. In the morning you can have it on until the last moment, then by turning it off cool the pipes in a very short time, of course letting your extra steam escape; this may seem a waste, but is not so much waste as to keep it in the house to the injury of your plants. I may seem to make more of this than it deserves, but I believe I have not overdrawn it.

Another advantage is, you can carry it long distances and so can do with one fire what with hot water would take several, thus making a saving of labor and coal, for where there are a number of fires there must be a certain waste of fuel in the starting and keeping going of each fire whether large or small, when heat is not wanted in the houses. The centralizing of labor to one hole, only having one place to take coal to, one place to take ashes from and one fire to attend to must be a saving in labor, as compared with having several places.

Again the pipes are so much smaller they are more easily arranged in the houses without being in the way. Often there are enough 4 inch pipes under a table to occupy the whole space, were they not there this space could sometimes be used to advantage for something else, and where there are no tables the ground is often very valuable. Should any one be desirous of using overhead heat in his houses he is sure to find it easier and much less weight for the house to carry, to use 1 or 1½-inch steam pipe than 4 inch hot water pipe; and should you want to add to the number of pipes during cold weather it can be more readily done than with large pipe.

I believe that with the best kind of boiler there is also a saving of coal, and especially so where they are fixed to burn pea coal, which can be done wherever you have a good draught and plenty of boiler capacity.

Another advantage is the use you can make of steam to destroy mildew. Often in the fall by heating one pipe and putting sulphur on you can check this pest, when to do it with hot water would necessitate making all the pipes hot,

running the temperature of the house to an injurious point and then not as effective as one steam pipe. An occasional sprinkling over steam pipes with tobacco water will be found a check to the increase of greenfly.

In putting in steam there are a few simple rules that must be followed to have it work well. First have your boiler low enough to well drain the pipes back, then let pipes be so arranged as to be highest as soon as possible after entering the house, with a slight grade all round and back down to boiler, having water level in boiler at least two feet lower than floor of house. If this is done you should have no trouble with the circulation. At some places where there is difficulty in getting the boiler low enough they have a trap to lift the water up again to the required level, and I believe this answers very well, but of this I have no personal knowledge. Don't fail to put in plenty of valves, in fact I think there should be one in every pipe, so you may turn on only one pipe at a time. In a great many places this is not done; to save the expense of the valves it is so arranged as to turn on a whole coil of pipes (say 4 or 5) at once, thinking that being a good big house you will not want so little change as one pipe, but this is a mistake for the time will surely come when one pipe more would be just enough and two would be too much.

It has been said that the extreme heat from steam pipes was injurious to plants, but this I believe is a mistake unless they come in actual contact and then whether steam or hot water they would be damaged. Another objection often mentioned is having your whole place depend on one boiler. Would not the result be had should anything about it give out? I do not think there is any mere likelihood of a steam boiler giving out than one for hot water, but to provide against accident would arrange them in pairs and so connected by valves as to be able to cut off either boiler entirely and let the other do the work until repairs are made. This I think can be done with less expense where there are only two boilers to be connected than where there are three or four pairs to connect, as would be the case with hot water, and each connection adds to the expense in valves, etc.

With hot water under pressure I have had so little experience that I can not say much about it, but as compared with steam I think it has no advantages on a large place. On a small scale it can be made to work very well. I have one house standing alone where I use it, and the foreman says it is the best heated and most easily managed house on the place. Whether hot water under pressure would do with large boilers to run a number of houses I am doubtful, and to put a boiler in for each house would be no benefit over the old system of hot water.

OBITUARY.

JAMES EADIE a well-known florist of Cleveland, O., died at his home in that city October 9, at the age of 62 years.

He was a native of Scotland, and came to this country in 1856. He located in Philadelphia and was for thirteen years gardener to Madam Rush, afterwards starting the place now known as Hugh Graham's at Nineteenth and Thompson streets. He then removed to Cleveland and started a commercial place at Glenview which he has conducted for the last twenty-three years. He leaves a widow, two sons and four daughters, who will carry on the business he founded.

THE AMERICAN FLORIST

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The Advertising Department of the AMERICAN FLORIST is for Florists, Seedsmen, and dealers in wares pertaining to those lines ONLY. Please to remember it.

Orders for less than one-half inch space not accepted.
Advertisements for November 15 issue must reach US by noon, Nov. 9. Address

THE AMERICAN FLORIST CO., Chicago.

A COPY of the proceedings of the Buffalo convention of the Society of American Florists has been received from Secretary Stewart. As the last convention was one of the most interesting and valuable ones ever held by the national society it naturally follows that the stenographic report occupies a position on the same plane. The many valuable essays together with the very interesting and instructive discussions on the same are to be found complete in its pages. The typographical work is most excellent and Secretary Stewart is to be congratulated upon his systematic compilation and careful reading of final proofs. How any florist can get along without this report is a mystery, but we understand that there are still some florists who have not yet joined the society and others who have allowed their membership to lapse. This should not be. Such should wake up from their nap. Don't let a paltry \$3 stand between you and such a valuable book as this. It is worth ten times that to any florist who has got brains enough to make practical use of good, solid information. And you certainly have, hence you should send in your membership fee to Secretary Stewart which will entitle you to a copy of the report.

IN ANOTHER COLUMN appears a report of an investigation of the fungous disease known as "black spot," by the professor of vegetable physiology of the Hatch Experiment Station at Amherst, Mass. prefaced by some very interesting information regarding fungi in general, which will undoubtedly be of great interest to every grower of plants. If a solution of sulphate of copper will successfully prevent the spread of the disease and secure immunity for plants not affected, it will certainly be our own fault if our plants are not free from this disease. To immediately remove and destroy the diseased parts of affected plants has been recognized as the first move to make in combating the disease, and its great importance is most forcibly impressed upon our minds by the facts brought to our notice in the report mentioned. If the solution recommended will accomplish the results stated, then to have "black spot" on your roses will be as much of a disgrace as the presence of greenfly now is. We trust that rose growers generally will try the preventive suggested and report the result to us.

WE ARE PLEASED to see that the officers of the Hatch Experiment Station of the Mass. Agricultural College, Amherst, Mass. are expending some of their time and energy in solving some of the problems with which greenhouse plantmen are confronted, as shown by the report on the "black spot" disease in another column. The report of a trial of steam and hot water boilers under nearly similar conditions which appeared in their April bulletin, and of which we published

extracts, has it appears provoked many inquiries and some criticisms, and in the October bulletin appears a request to those who have houses alike in all respects to heat them by the two different mediums, keeping careful records of temperatures and amount of coal used in each, and thus join with the station in tests that will be conclusive.

NEW TRADE DIRECTORY.—Work upon the new directory is now progressing rapidly. If you know of any business changes in your vicinity do not fail to report them to us. And if you have not yet reported the number of feet of glass on your place send in the figures at once that same may be given in the directory. We will receive advertisements for the directory up to December 1, but give us your orders as early as possible. We have already begun setting up advertisements for the book and the earlier copy is in the more time we can devote to getting the ads up in a tasteful manner. Advertising rates sent on application.

MESSRS. PITCHER & MANDA, Short Hills, N. J., will make a special show of chrysanthemums and orchids at their establishment November 4 to 9 which will undoubtedly be visited by all who can make it possible to be present. Mrs. Alpheus Hardy will of course be there in great force and it is expected that a few "babies" will make their debut. We are informed that the orchids will be in splendid bloom at the time and will include a fine piece of Vanda Sanderiana, hundreds of cypripediums, etc. For the convenience of visitors they publish a time table in their advertisement in this issue.

A SAMPLE of a new tree and plant label has been sent us by Messrs. Johnson & Stokes, Philadelphia. It is of very thin copper cut with two free ends to use in tying. It is so thin that by writing on it with only slight pressure a name can be impressed on it and the same can not be eradicated except by hammering. As copper is very durable and the price placed upon the labels is reasonable we believe they will be very useful, especially on plants in the open field in summer.

READERS of the FLORIST who desire to give the paper their fullest support may assist materially by confining their orders as far as possible to those who advertise in its pages.

PUT YOUR SIGN in the new trade directory. Copy will be received up to December 1, but send order earlier if possible.

Catalogues Received.

Geo. W. Miller, Chicago, plants; John Laing & Sons, Forest Hill, London, England, bulbs and plants; Boskoop Nursery Association, Boskoop, Holland, nursery stock; L. C. Lischy, Nashville, Tenn., nursery stock; A. F. Leonard & Co., Springfield, Mass., seeds and plants; Saml C. Moon, Morrisville, Pa, nursery stock; H. S. Anderson, Union Springs, N. Y., nursery stock, James & Son, Ussy, France, nursery stock; C. E. Allen, Brattleboro, Vt, bulbs and plants; Ketten Bros., Luxembourg, Europe, roses; V. Lemoine et fils, Nancy, France, plant novelties; A. M. C. Jongkindt Coninck, Dordrecht, Holland, nursery stock; J. A. Simmers, Toronto, Ont., bulbs and seeds; Association Flora, Boskoop, Holland, nursery stock; D. B. Woodruff, Macon, Ga. plants and bulbs; M. M. Bayersdorfer & Co., Philadelphia, florists' supplies.

Boston.

The cut flower trade shows a decided improvement within the past two weeks.

Heavy frosts have finished up all the remnants of outdoor bloom, and the cool weather has given an opportunity for firing up in the houses, so that the roses now coming into market are of good quality. Prices have stiffened up considerably, and will continue so unless the chrysanthemums, which are now beginning to appear in quantity, should affect the market for other flowers unfavorably. This has been the case in former years, but to a lesser extent last year, and there are some who predict that this year the effect will be still less. True it is that the class of chrysanthemums grown and called for now do not yield as much bloom nor are they as easily managed as the old fashioned small flowered kinds which were grown almost exclusively until within a few years. The prices asked and often readily paid for chrysanthemum blooms of the finest quality nowadays compare favorably with the prices of the highest class roses, and it can scarcely be said that the chrysanthemum any longer cheapens trade. Fifty cents a bloom at retail is far from cheap.

Violets are fairly abundant and there is every prospect that they will be as popular this year as last.

Long stemmed carnations are not very plenty as yet. Short stemmed ones are even scarcer. Everybody who grows carnations is striving to produce long stems, and the result is that the party who wants a lot of short stemmed white carnations for funeral designs nowadays finds it difficult to get his wants supplied except by paying the price of long ones and then snapping the stems off, all of which is done with a very dry face.

Among the new or rather unusual flowers seen at present is the beautiful cosmos. The windows of the florist stores fairly sparkle with clusters of them.

The Gardeners' and Florists' Club will discuss the chrysanthemum at the November meeting, when many of the local experts are expected to give their experience and their views. The interest in this subject ensures a good attendance, but there is every prospect of lively and interesting meetings for this season, as the impetus given by the approaching convention here is beginning to be felt.

Benj. Grey is still cutting a few blue pond lilies. He grows them for winter bloom in pans. For summer blooming he has a tank 90 feet long and cuts them in large quantities from April to September. He pronounces the N. Zanzibarensis and the native rosea the two best varieties for general culture.

He has a house of Pandanus Veitchii now which is well worthy of a visit. The plants are unusually well colored. A fine bench of eucharis gives promise of a bountiful crop.

The Bay State Fair which has just been held in Mechanics Building was a pronounced success, nearly 100,000 persons having visited it during the six days it continued. Of course the splendid cattle and horses and the concerts attracted the great body of visitors, but it was noticeable that the fruit and plants occupied the most desirable location in the center of the large hall, and the liberal premiums offered in this department indicated the prominence attached by the managers to these exhibits. The display of palms and decorative plants was good. It comprised in the main the same collections which had been shown at the horticultural exhibition a fortnight previous.

W. J. S.

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 Roses planted for Winter 1889-90.
 20,000 WOOTTON, 2,000 MME. WATTEVILLE
 15,000 PERLES, 2,000 MME. CUSIN,
 10,000 LA FRANCE, 1,000 LUCIOLE,
 3,000 AM. BEAUTY, 6,000 BRIDES,
 2,500 PURITAN, 2,000 MERMETS,
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We keep a large supply of Fancies and Carnations
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Wholesale Markets.

Cut Flowers.	
BOSTON, Oct. 25.	
Roses, Bon Silence.....	\$1.50
" Gontiers.....	3.00
" Niphetos.....	4.00
" Perle, Sunset.....	5.00
" Mermets.....	6.00
" Bride.....	8.00
" Wootton.....	10.00
" Beauty.....	12.00
Carnations, white.....	1.50 @ 2.00
Carnations, colored.....	.75 @ 1.50
Valley.....	1.00
Mignonette.....	1.00
Violets.....	1.00
Calls.....	12.00
Tuberose.....	1.50
Cosmos.....	2.00
Bouvardia.....	1.00
Chrysanthemums, fancy.....	6.00 @ 12.00
Chrysanthemums, common.....	1.00
Smilax.....	12.50
Adiantums.....	1.00
Farfarsen.....	15.00 @ 20.00
Asparagus.....	60.00
NEW YORK, Oct. 26.	
Roses, Bon Silence.....	\$1.50
" Gontiers, Souvs.....	2.50
" Perles, Niphetos.....	2.50 @ 4.00
" Mermets, Brides.....	3.00 @ 5.00
" Cusins, Watteville.....	4.00 @ 6.00
" La France.....	6.00 @ 8.00
" Bennetts.....	5.00 @ 6.00
" Dukes.....	5.00 @ 6.00
" Souv. de Woottons.....	5.00
" Am. Beauty.....	15.00 @ 40.00
" Duchess of Albany.....	5.00 @ 20.00
Smilax.....	12.00 @ 15.00
Carnations, fancy, long.....	1.50 @ 3.00
Lily of the valley.....	1.50 @ 3.00
Violets.....	1.00 @ 1.50
Adiantums.....	.50 @ 1.00
Chrysanthemums plentiful, the choice varieties selling from \$1.00 to \$3.00 per dozen sprays.	

PHILADELPHIA, Oct. 26.	
Roses, Perles, Niphetos.....	\$2.00 @ \$3.00
" La France, Mermets.....	3.00 @ 5.00
" Brides, Bennetts.....	4.00 @ 6.00
" Am. Beauties.....	4.00 @ 6.00
" Gontiers.....	2.00
" Wootton.....	5.00 @ 8.00
" Watteville.....	4.00
" Duchess of Albany.....	10.00
Carnations, long.....	1.50
Carnations, short.....	1.00
Violets, double.....	.50
Violets, single.....	.25
Cosmos, Bouvardia.....	1.00
Chrysanthemum, long stems.....	1.00
Valley.....	15.00 @ 20.00
Smilax.....	8.00
Adiantums.....	1.00
Chrysanthemum.....	25.00
Asparagus plumosus.....	60.00
CHICAGO, Oct. 28.	
Roses, Perles, Niphetos.....	\$3.00 @ \$4.00
" Mermets.....	4.00 @ 6.00
" Brides.....	5.00 @ 7.00
" La France.....	5.00 @ 6.00
" Bennetts, Dukes.....	5.00
" Bon Silence.....	2.00
" Am. Beauties.....	10.00 @ 15.00
Carnations, short.....	.75 @ 1.00
Carnations, long.....	1.25
Carnations, fancy.....	2.00 @ 3.00
Smilax.....	15.00 @ 20.00
Adiantums.....	1.00 @ 1.25
Chrysanthemum.....	10.00 @ 15.00
Violets.....	1.00

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 tra pieces of any description made to order on short-
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SEED TRADE ASSOCIATION.

H. W. JOHNSON, Philadelphia, president; ALBERT M. McCULLOUGH, Cincinnati, secretary and treasurer. The eighth annual meeting at Saratoga Springs, N. Y., June, 1899.

MR. ALFRED HENDERSON'S illness continues and is reported to be very serious.

SEND US an advertisement for the new trade directory. It will be frequently consulted by buyers.

THE MINNEAPOLIS *Star* illustrates a two column article with views of the N. B. G. Co.'s trial ground and seed farm.

PHILADELPHIA.—S. L. Allen & Co. have completed their new factory and have removed their office to 1107 Market street.

THE SEVENTH ANNUAL REPORT of the American Seed Trade Association has just been issued by Secretary Albert McCullough.

THE OCTOBER 19 ISSUE of the *Rural New Yorker* devotes three or four pages to the Dwarf Lima Beans as offered by three prominent seedsmen.

DOVLESTOWN, PA., Oct. 17.—The summer residence of W. Atlee Burpee, of Philadelphia, on the Burpee seed farm, a mile west of the town, was burned to the ground this evening. It was erected last spring at a cost of about \$2,000. The flames originated in the kitchen, but how is not known. Neighbors succeeded in saving all the valuable furniture. Mr. Burpee and family vacated the cottage only yesterday to return to the city.—*Philadelphia Enquirer*.

News Notes.

CAMDEN, N. J.—A chrysanthemum show will be given at Read's Hall beginning November 6.

LEBANON, MO.—The Missouri State Horticultural Society will hold its 32nd annual meeting here December 3 to 5.

OSHKOSH, WIS.—The Winnebago County Hort. Society will hold its annual chrysanthemum show here November 12 and 13.

ERIE, PA.—A chrysanthemum show will be held here November 5 to 7. Premium lists can be had on application to H. Tong, P. O. box 220.

TARRYTOWN, N. Y.—F. R. Pierson & Co. will incorporate with capital of \$100,000. They will put a large amount into glass for cut flower growing.

NEW YORK.—The first autumn flower show occurred here October 9 at the American Institute Fair. A chrysanthemum show will be held at the same place later.

PHILADELPHIA.—Fred S. Krebs who lost 1341 feet of single thick glass by hail in the recent storm was insured in the Florists' Hall Association and his loss was promptly paid.

ST. LOUIS.—Henry Michel has withdrawn from the Michel Plant and Seed Co. and will start a greenhouse establishment at Marion, Ind. He will have the advantage of natural gas for fuel and good shipping facilities at the location selected.

SYRACUSE, N. Y.—The Central New York Hort. Society will give its first

annual chrysanthemum exhibition and flower show November 7 and 8 at Greyhound Hall. Premium lists may be obtained from Louis E. Marquise, secretary, Syracuse, N. Y.

WILMINGTON, DEL.—The florists of this city will give their first chrysanthemum show at Old-Fellows' Hall, November 14 to 16. J. L. Brown & Co. have just finished a new carnation house 75x15. L. E. Baylis has rebuilt two of his old houses. The heavy rains in September injured carnations.

DETROIT.—Preparations for the chrysanthemum exhibition November 12-16 are progressing finely. This is the first attempt to hold an exhibition of the kind here and the florists interested are Juo. Breitmeier & Sons, the Detroit Floral Co., Holznagle & Noel, S. Taplin and B. Schroeter. It will be merely a display by the florists named, there being no premiums offered and there will be no competition except friendly rivalry as to who can show the best plants.

OTTAWA, CANADA.—The Valley of Ottawa Gardeners' and Florists' Club was organized here last April and meets regularly on the second Thursday evening of each month in the Young Men's Christian Association Building. Following are the officers: President, Jas. Sorley; 1st Vice-President, Jas. Hickey; 2nd Vice-President, Thos. Elmit; Secretary, N. Robertson; Treasurer, C. Scrim. The membership fee is \$2. Subjects are proposed by any member of the club and the president selects some competent member to treat it. Discussion is open to all and questions are always in order. So far we have been most successful and have aroused a spirit of inquiry into things that were little thought of by many of us and the meetings are becoming most interesting.

NASHVILLE, TENN.—The prospect for chrysanthemums this season is not so good as formerly. For several seasons past all those growers who raised largely have lost money although many charitable organizations under the management of ladies, held annual chrysanthemum shows. Chas. Racknitz, furnished beautiful specimens last season, as also did G. W. Currey & Co. The market was over stocked and prices poor. This year all growers have abandoned the pot raised plants, and depending upon outdoor growth, allowed the heavy frost of October 6 and 7 to greatly injure all those plants not removed to cover. As a consequence there will be a scarcity of those beautiful blossoms. G. W. Currey & Co. under the management of Mr. R. B. Currey have greatly increased their facilities for supplying the cut flower trade in this city, erecting three new houses last summer, and planting several thousand rose plants. Mr. S. W. Johnson, recently with the above firm, has been and is still very ill with typhoid fever, at his home in Clarksville.

WASHINGTON.—The feature of introducing largely floral decorations on the occasion of their "Openings" which merchants resort to of late has been steadily gaining in favor here. The removal to a new place of business of one of the largest house furnishing firms in this city, afforded an occasion for an exceptional effort in this line, and the result has been the "town talk" for the past three days. The interior of the immense establishment of seven stories was hung over with garlands of smilax and asparagus, while groups of palms and ferns, with an occasional set piece in cut flowers, filled every

available space. But it was the large front window encased and arranged as a boudoir which displayed most effectively the master hand of Smalls the floral artists. The back ground constituted a semi-circular recess completely covered with potted Maidenhair ferns lying upon bevelled shelving; imbedded in the center some four feet above the floor was an oval mirror, below this base on an incline was imbedded another mirror bordered by clusters of lilies of the valley constituting a most attractive and unique foreground. On either side stood large vases made up of immortelles, filled, the one with La France the other with choice Niphetos. Dainty gilt chairs, settees, tables and stands on the softest of rugs, beneath lace curtains of marvelous workmanship and texture made up a *tout ensemble* such as the public is rarely privileged to see.

Coming Exhibitions.

November 5-8, Chicago.—Chrysanthemum Show Chicago Florist Club.

November 5-9, Indianapolis.—Chrysanthemum Show Society of Indiana Florists.

November 5-8, Montreal.—Chrysanthemum Show Montreal Florists' and Gardeners' Club.

November 6-8, New Haven, Conn.—Annual exhibition of the Chrysanthemum Club.

November 12-16, Detroit.—Chrysanthemum Show Detroit Florists.

November 12-16, Philadelphia.—Chrysanthemum Show Pennsylvania Hort. Society.

November 12-14, Boston.—Chrysanthemum Show Mass. Hort. Society.

November 12-14, Orange, N. J.—Chrysanthemum Show New Jersey Floricultural Society.

November 12-16, Cincinnati.—Chrysanthemum Show Cincinnati Florist Club.

November 13-14, Worcester, Mass.—Chrysanthemum Show Worcester County Hort. Society.

November 14-16, Springfield, Mass.—Chrysanthemum Show Hampden County Hort. Society.

INDIANAPOLIS CHRYSANTHEMUM SHOW, NOV. 5 TO 9 INCLUSIVE.

A statement to prevent any misunderstanding in regard to the "National Prize"—"MRS. HARRISON CUP."

1. Any unnamed Seedling Chrysanthemum of American origin, that has never been put on sale is eligible to competition.
2. Six Cut Blooms of such seedling shall constitute one entry.
3. Each person competing for the cup, whether with one or more entries, shall pay an entry fee of \$2. This includes membership for one year.
4. The judges of these seedlings are appointed by the National Chrysanthemum Society.
5. Blooms for contest must be staged by 6 P. M. on Tuesday the 5th.

SITUATIONS, WANTS, FOR SALE.

Advertisements under this head will be inserted at the rate of 10 cents a line (seven words) each insertion. Cash must accompany order. Plant ads. not admitted under this head.

SITUATION WANTED—By an experienced florist, aged 34, single; good references. Address J. J. Riverdale P. O., Cook Co., Ill.

SITUATION WANTED—By a housew. floral, and design maker; first class; German, single, 25 years old. Address HENRY REICHHOLZ, Greenman Avenue, Westely, N. Y.

SITUATION WANTED—By experienced, competent florist and gardener, at once. Private or commercial. Single, German, middle aged man. Address W. K. 411 Broome St., New York City.

WANTED—Florist and vegetable gardener to work on halves; sober, industrious and honest; must come well recommended. Married German preferred. Address H. S. Nud River, Clark Co., Ohio.

Chicago.

The annual election of officers at the last meeting of the Florist Club resulted in the re-election of the old officers as follows: James D. Reynolds, president; D. B. Fuller, vice-president; G. L. Grant, secretary; P. J. Hauswirth, financial secretary; Flint Kennicott, treasurer; Thos. Hopkinson, F. F. Benthley, A. McAdams, Jos. Curran and M. F. Gallagher, trustees.

Arrangements for the club's coming exhibition are now complete. A feature will be the parlor decorations, for which prizes of \$200, \$125 and \$75 are offered. An effort is being made to secure a committee of twelve well known society ladies and lovers of flowers to judge the floral work.

C. E. Pollard has started into the business in a small way at Mendel. He has built one house 40x24.

The floral decorations at the banquet tendered the Pan-American congress were very elaborate and were much "illustrated" in the daily press. Florists M. F. Gallagher and Walter Kreitling arranged them. A design arranged by the first named was a representation of a section of a globe bearing the outlines of the western hemisphere. It was made up of immortelles and Cape flowers and was much admired by the press representatives judging from their reports. Large quantities of choice natural flowers were however also used.

New Copper Labels FOR PLANTS AND TREES.

Absolutely Imperishable.

No string or wire required.

This label is made of Prepared Copper, extremely soft and pliable, and the name of the plant or tree is written or INDENTED easily with any pointed instrument. The inscription thus made is clear and distinct and will remain so as long as the plant lives.

Samples sent on application.

PRICE, \$1.50 per Gross. 10 per cent.
Discount in 10 Gross lots.

JOHNSON & STOKES, Seedsman,

217 & 219 Market St., PHILADELPHIA, PA.

ENGLISH IVY LEAVES FOR DESIGN WORK.

To polish the leaves with a wooden cloth slightly moistened with linseed oil adds materially in designing.

LEAVES, 50c. per 100 by Express.
60c. " " by Mail.

G. R. CLARK & CO.,
SCRANTON, PA.

VERBENAS.

Orders booked now for rooted cuttings.

STOCK ABSOLUTELY HEALTHY.

NEW MAMMOTH SET, \$1.25 per 100, \$10.00 per 1000.
General Collection, most approved sorts, largely of best MAXIMOTIES, \$1.00 per 100, \$8.00 per 1000.
SMILAX, 2-inch pots, \$2.50 per 100, \$20.00 per 1000.

Address
J. G. BURROW,
FISHKILL, N. Y.

TO THE TRADE.

Contracts taken now for ROOTED CUTTINGS of CARNATIONS and VIOLET RUNNERS, both of which can be had after December 1st. Correspondence solicited.

JOS. RENARD,

UNIONVILLE, Chester Co., PA.

Telephone connection. All telegrams sent to WEST CHESTER, PA.

For Easter Flowers, Pot not
later than November.

LILIUM MARRISII

THE TRUE VARIETY, grown by us, on our own farms in Bermuda. Our Standard Size, bulbs 5 to 7 inches in circumference, is best adapted for florists' use. We offer fine, sound bulbs of this size, at

\$7.50 PER 100, \$65.00 PER 1000.

F. R. PIERSON,

TARRYTOWN, NEW YORK.

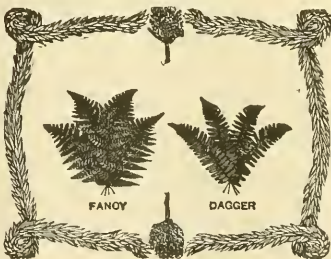
Mention American Florist.

CHRYSANTHEMUMS. STOCK PLANTS.

Choicest Old and New varieties, at moderate prices.

SEND FOR CIRCULAR.

T. H. SPAULDING, Orange, N. J.



1,000,000 EVERGREEN CUT FERNS

ESPECIALLY FOR FLORISTS' USE.

\$1.50 per thousand Ferns. Discount on large orders.
Special attention paid to supplying to the wholesale trade. Write for prices.
BOUQUET GREEN. \$2.00 per bbl. (30 lbs.)
\$5.00 per 100 lbs.
24,000 yds BOUQUET GREEN WREATHING, all wound with wire in first class manner per yard
3-in. flat or one sided wreathing in center..... 1 cts.
4-in. round wreathing, with cord in center..... 6 cts.
4-in. round wreathing, with cord in center..... 5 cts.
5-in. round wreathing, with cord in center..... 10 cts.
700 BLS. DRY SPIRIGUM MOSS, \$1.00 per box or 6 bbls. for \$5.00 Write for terms on large lots.

L. B. BRAGUE, Hinsdale, Mass.

HAVE 50 STOCK PLANTS OF

CHRYSANTHEMUM

M. E. NICHOLS (October Beauty)

To dispose of at \$1.00 each.

This is the best very early pink variety, flowering from October 1st to 15th.

Also 500 Cinerarias at \$6 per 100, from 3 inch pots, and 1000 Herbaceous Calceolarias, from 2 inch pots, at \$6 per 100.

I will guarantee that no better strain can be obtained of either.

TERMS, CASH WITH ORDER.

JOHN THORPE,

PEARL RIVER, NEW YORK.

DESIRABLE PLANTS FOR FLORISTS

MARIA LOUISE VIOLETS, clean, HEALTHY young plants, from 2-inch pots. Will flower this winter. \$2.00 per hundred.

VINCA ELEGANTISSIMA AUREA, best trailing vase plant. \$2.50 per hundred.

Fine young Crotons, 12 to 30 inches high, from 3 and 4-inch pots, 25 cents and 35 cents each.

W. T. BELL, Franklin, Pa.

NEW SWEET SCENTED CHRYSANTHEMUM

"Nymphaea." A decided novelty. Form and fragrance of Pond Lily. Fine for florists' use. A so the crown of the crown of older varieties. Send stamp for plate of "Nymphaea," and Catalogue.

H. W. HALES, Ridgewood, N. J.

300 4 to 6-in. pot plants with buds and flowers of the new CHRYSANTHEMUM

MRS. ALPHEUS HARDY,

to be divided into 60 lots of 5 each, and sent to any address on receipt of \$5 for each lot. Freight from New York City to be paid by the purchaser.

A. PELEY, Florist,

FORT LEE, Bergen Co., N. J.

FIELD GROWN CARNATIONS.

We have 10,000 plants in fine condition to dispose of at reasonable rates.

Also 5,000 to 8,000 VIOLETS for winter blooming.

Write for circular and prices.

W. R. SHELMIRE,

AVONDALE, Chester Co., PA.

POLMAN MOOY,



HAARLEM,
HOLLAND.

TRADE MARK.

NO AGENTS.

FORCING BULBS

VALUABLE NOVELTIES
IN TULIPS.

BEST FORCING DAFFODILS.

Write for new list, now ready.

R. VAN DER SCHOOT & SON,
HILLEGOM, HOLLAND.

LARGEST GROWERS OF

HYACINTHS, TULIPS, NAR-
CISUS, SPIRÆA, LILIES
OF THE VALLEY, ETC.

Headquarters for Forcing Bulbs. Whole-
sale Importers should write us for prices.

Association Flora, Boskoop, Holland.

NOW ON HAND IN NEW YORK:

25,000 Dwarf budded Roses in sorts.
3,000 Rhododendrons in sorts.
3,000 Azalea Mollis and Pontica in sorts.
2,000 Clematis, extra strong plants.
Trees, Shrubs, Evergreens, Conifers, Pæo-
nias and other herbaceous plants.

PLANTS FOR FORCING AND DECORATING.

Address P. OUWERKERK,
212 Fulton St., NEW YORK CITY.
Catalogue on application.



TRY DREER'S
GARDEN SEEDS

Plants, Bulbs, and
Requisites. They are the
best at the lowest prices.
TRADE LIST issued
quarterly mailed free.

HENRY A. DREER,
Philadelphia

Large Irish BEACONSFIELD Yellow Primrose
for Naturalization in the States.

WM. BAYLOR HARTLAND, Seedsman,

CORK, IRELAND.

Offers New Seed just harvested, per lb. 50s; ½ lb. 27s
6d; ¼ lb. 15s; ounces 8s, for immediate reply and cash
with foreign orders, so long as unsold. Old estab-
lished Seed Warehouse, 24 Patrick St., Cork.
He also offers New Crop of the SNOGLOARY
(Chionodoxa), and Primula Trumpet Daffodil
Seed, from his celebrated collection.

MRS. J. S. R. THOMSON, Spartanburg, S. C.
(2 years State Vice-President S. A. F.)

OFFERS TO TRADE Moon Flower Seed, Eu-
allias, Dioscorea, Crinum, Pancratium, 5 var. Anu-
rythos, Antigonon leptopus, open air grown. Tea
Roses 1 year, 3 var. Lilies, Euphorbia corollata,
Croz's Dwarf Cannas and C. bacilla, Candidum
esculentum.

MONTHLY PELARGONIUM

Fred Dorner, 2½-inch, strong, \$ 5 00
GER. Mrs. Pollock, 4 in., stock plants bushy, 10 00
4 in., 1 year old, 5 00
BOUVARDIA DAVISONI, 4½-inch, bushy, 8 00
3½-inch, fine plants, 5 00

ANDREW MEYER, 3218 S. Jefferson Av., St. Louis, Mo.

SUNNYSIDE FLORAL NURSERY,
JAMES M. LAMB, Proprietor, Fayetteville, N. C.

DON'T FORGET that we can furnish the trade
first class Pearl and double Italian Tuberose bulbs
(November delivery) at \$11 per 100; 2nd size \$9 a 100.
We also have Cape Jasmine from 1 to 4 ft. Azaleas
double and single, 1 to 2 ft. Olea fragrans, 12 to 15
inches, bushy, in 4-in. pots; Clematis crispata; Venus'
Fly Trap; Sarcocolla purpurea and flava; and other
native plants at reasonable prices, and in any
quantity.

V. H. Hallock & Son's Trade Catalogue

— OF —

FLORISTS' BULBS and SEEDS, NOW READY.

LILIUM HARRISII, 5 to 7-inch. . . . \$7 00 per 100; \$65 00 per 1000
7 to 9 inch. . . . 9 50 " 90 00 "

TUBEROSE EXCELSIOR PEARL, READY NOV. 1,
\$1 50 per 100; \$12 50 per 1000; f. o. b. New York.

Very complete list of seasonable "Florist Seeds," PRIMULA, PANSY, DAISY, &c.

WE CARRY 400 VARIETIES OF CHRYSANTHEMUMS.

Plants ready to ship at all times.

GLADIOLUS "SNOW WHITE"

will be for sale by all dealers next January. To all wishing a description, or to cata-
logue this New Pure White variety, a description with prices will be sent on appli-
cation.

V. H. HALLOCK & SON,
QUEENS, N. Y.



Dutch Bulbs in Endless Quantities

HYACINTHS OF FINEST QUALITY.

TULIPS OF ALL LEADING VARIETIES.

CROCUS, NARCISSUS, FREESIA,
LILIUM CANDIDUM and HARRISII
AND ALL OTHER FLORISTS' WANTS, AT WONDERFULLY
LOW PRICES.

Wholesale List mailed on application.

Z. DE FOREST ELY & CO.,
WHOLESALE GROWERS AND IMPORTERS,
1301 & 1303 Market St., PHILADELPHIA, PA.

J. A. DE VEER,

183 WATER ST., NEW YORK.

offers Finest Stock of DUTCH BULBS, ROMAN HYACINTHS, PAPER WHITE NARCISSUS, LILIUM
CANDIDUM and HARRISII, LILY OF THE VALLEY (True Berlin pips and Dutch clumps,
FREESIAS, CALLAS, and OTHER DESIRABLE

FORCING BULBS FOR FALL DELIVERY.

Also prime Nursery Stock, such as Roses, Azaleas, Camellias, Rhododendrons,
Seeds, etc., from leading growers in France, Belgium, Holland and Germany, at lowest prices.

Sole Agent for HOOPER'S Celebrated Porcelain Flowers.

CATALOGUES FREE TO THE TRADE.

FALL BULB LIST NOW READY.



TIME NOW TO ORDER

BOUQUET GREEN, HOLLY, PAMPAS
PLUMES, FLORISTS' SUNDRIES, and
all goods for the HOLIDAYS.

STILL ON HAND:

A few thousand ROMAN HYACINTHS, DUTCH
HYACINTHS, NAMED AND MIXED TULIPS,
NARCISSUS, LILIES, ETC.

JAMES KING,

170 LAKE STREET, CHICAGO, ILL.

CYCLAMEN

Seed from our best plants, chiefly Giganteum, an
extra fine strain. White, white with crimson and
mauve base spotted, and shades of crimson and blue.
Sow at once. Our sowings are germinating freely.
For packet 25c, 50c and \$1.00.

J. LAURENCE, Harrisburg, Pa.

12-inch HANGING BASKETS, per doz. \$1.50
All kinds of FLORAL DESIGNS for sale
SEED FOR SALE. CARNATION AND
GERANIUM CUTTINGS at low prices.

J. B. ROACH,

No. 291, 293, 295 East Lake St., CANTON, OHIO.

Send your address for my 1890

SEED CATALOGUE.

M. B. FAXON,

BOSTON, MASS.

SMILAX.

Strong plants, in 3-in. pots, \$2 50 per 100.

Joseph Hancock,
WYNCOTE, Mont. Co., PA.

St. Louis.

The floral display at the exposition was very creditable to the local florists. For best group of decorative plants the first prize of \$150 was awarded to Alexander Waldbart, second prize, \$75 to C. Young & Sons, third, \$50 to the Jordan Floral Co., and fourth, \$25 to Wm. Schray.

For parlor decoration C. Young & Sons received first prize, \$150; Jordan Floral Co. second, \$75; and William Ellison, third, \$50.

The first prize of \$100 for best table decoration went to Wm. Ellison, second, \$50 to C. Young & Sons and third, \$25 to the Jordan Floral Co.

For bridal bouquet first prize of \$25 went to the Jordan Floral Co., second, \$15 to Wm. Ellison, and third, \$10 to C. Young & Sons.

Messrs. C. L. Mitchell of Cincinnati, Chas. W. Reimers of Louisville and Robert S. Brown of Kansas City acted as judges.

PRIMULAS.

Strong plants of P. Obconica for winter flowering, in light cases, by express, \$5.00 per 100. Fresh Crop (1889) Seed of "Obconica," \$1.00 per 100 seeds.

ADIANTUMS.

A. CUNEATUM, from 2 1/2-inch pots..... \$ 5.00
" 2-inch pots..... 3.00
A. MORITZIANUM, from 3-inch pots; fine bushy plants, grand for filling ferneries, etc. 6.00
FISHER BROS. & CO., Montvale, Mass.

Mention American Florist.

Double White Primulas, \$10, \$12 and \$15 per hundred.

Lilac, 4 to 6 ft., well set with buds, nursery grown, for winter blooming. \$25, \$35 and \$50 per 100. Cash with order will receive prompt attention.

S. TAPLIN,

Fort Street W., DETROIT, MICH.

NEW PRIMULA OBCONICA. Seed Ready.

Packet (about 1000 seeds)..... \$1.00
PRIMULA FLORIBUNDA, pkt (100 seeds) 25c.
PRIMULA OBCONICA PLANTS, from 3 & 3 1/2-inch pots, \$1.25 per doz & \$10.00 per 100.
PRIMULA FLORIBUNDA, 2-inch pot plants, 60 cts per doz & \$4.00 per 100.

I. N. KRAMER & SON, Marion Iowa.

GEO. W. CALDWELL,
FLORISTS - SYLVAN - SUPPLIES.
Evergreen, Ala.

CUT FERNS IN VARIETY.

Evergreen and Deciduous; also Mosses, Ferns, Mistletoe, Wild Smilax and all Evergreens. Telegraphic orders receive prompt attention. Correspondence solicited.

When you have a large Decoration consult me.

FLORISTS' STOCK.

Cyperus, strong, 4-inch, 2 ft.....	\$ 8.00
Fuchsia, stock, 4-inch.....	6.00
Rooted Cattinies.....	3.00
Gesnerium, root-potted.....	3.00
Torenia Asiatica, 3-inch.....	5.00
Streptolobis Jamesonii.....	5.00
Hydrangea, 3-inch.....	5.00
" 4-inch.....	10.00
" 6-inch.....	10.00
Hardy Pinks, 4 varieties clumps.....	10.00
Iris Kemperli.....	10.00
Hardy Phlox, 12 varieties ground roots.....	5.00
Ivy, German.....	5.00
Polygonatum, milked vars.....	5.00
Alyssum, double.....	5.00
Canna Ehemanni.....	10.00
" Rohdea, dark.....	10.00
" common.....	5.00
Cyclamen, 4-inch.....	1.50
Dracena indivisa, 6-inch, strong.....	2.00
Sphagnum Moss.....	per bbl. 1.00

O. L. HALL, Springfield, Mass.

75,000 VIOLET PLANTS FOR SALE.

All good, strong, healthy plants, 10 per cent better than last year. Per 100 Per 1000
Marie Louise, double blue..... \$2.50 \$25.00
Czar, single blue..... 2.50 22.00
Swanley White double white..... 2.00 18.00
Runners of Swanley White, well rooted, 100..... 3.00
Also 3000 Magnolia grandiflora in 2 and 2 1/2-in. pots..... 5.00 45.00
Or will sell 500 of any of the above at 1000 rates.
Cash must accompany orders from unknown parties.
Address M. TRITSCHLER & SONS,
HYDE'S FERRY GARDENS, NASHVILLE, TENN.

AUGUST RÖLKER & SONS

44 Dey Street, NEW YORK.

HORTICULTURAL DEPOT

—AND—

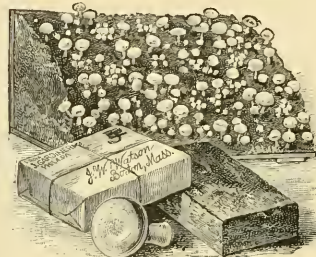
PLANT AUCTIONEERS.

TWO SALES EVERY WEEK.

CONSIGNMENTS SOLICITED.

MUSHROOM SPAWN.

Best Imported English Milltrack.



Gardiner's Genuine English Milltrack Mushroom Spawn.

John Gardiner & Co. make a specialty of genuine English Milltrack Spawn. Why waste your money on doubtful quality, when you can buy the genuine English Milltrack at a reasonable price?

Can be thoroughly relied on to produce a fine crop of the best Mushrooms. Specially prepared for our trade by one of the most celebrated growers in Worcestershire.

Four importations a season—always fresh and unsurpassed in quality. The price commends itself.

By mail, post-paid, 22 cents per pound; five pounds for \$1.00. By express, at customers' expense; ten pounds for \$1.20; fifty pounds for \$5.00. Write for special prices on large lots.

FRENCH SPAWN.

In 2-lb. boxes, by express, 80 cents; ten boxes \$7.00, twenty-five boxes \$15.00, fifty boxes \$27.50.

NOTE.—For culture of French Mushroom, see pamphlet "Mushroom Culture," by VILMORIN, sent free on application with every order for spawn.

For culture of "English Milltrack" Spawn, see our pamphlet "Mushrooms for the Million," free list stamp with all orders when requested.

Address all orders and communications to
JOHN GARDINER & CO. 21 North 13th St. PHILA. PA.

PRIMROSES.

A fine strain of Single Primroses, 4 inch pots at \$5.00 per 100; 3 inch pots at \$5.00 per 100.

PRIMULA OBCONICA.

Strong plants, at \$1.50 per dozen.

Good strong plants, in 3-inch pots, at \$3.00 per 100, \$25.00 per 1000.

LATANIA BORBONICA.

Fine shaped plants, in 4-inch pots, at \$3.00 per dozen, \$20.00 per 100.

DRACENA FERREA.

Good co or, 5 inch pots, \$3.00 per dozen.

DRACENA TERMINALIS.

Strong plants, 3-inch pots, \$3.00 per dozen.

AMPELOPSIS VEITCHII.

From open ground, \$5.00 per hundred.

ROSES.

Good assortment in 1-lb., strictly my selection, at \$5.00 per 1000. Strong Baltimore E Belle, in 4-inch pots, at \$1.00 per 100. Gen'l Jacquemonts, in 2-inch pots, at \$5.00 per 100.

Send for Fall Catalogue.

GEO. W. MILLER,

1748 N. Halsied St., CHICAGO.

Foreign Grape Vines for Graperies.

Splendid 1 and 2 year old vines, true to name, grown by an expert. List of varieties and prices mailed on application. HENRY A. DREK,
714 Chestnut St., Philadelphia, Pa.

J. C. Vaughan,
Chicago.

NOV. 1st

OFFER:

BOUQUET GREEN,

Fresh, cheap, prompt.

HOLLY,

The "Get There" variety.

PAMPAS PLUMES,

Of new crop.

FLORIDA MOSS,

Ready, pound 15 cts.

L. AURATUM,

Two sizes, \$7.50 and \$9.00.

SPIREA,

November 10th.

LILY OF THE VALLEY,

November 10th.

AZALEAS,

Ready, fine, \$40.00.

CYCLAMEN,

Fine imported bulbs.

GLADIOLUS, FORCING,

Early English sorts.

PAEONIAS,

Imported, extra, \$16.00.

IMPORTED ROSES,

December 10.

J. C. Vaughan,
Chicago.

SOME CHOICE STOCK

ON WHICH YOU CAN MAKE MONEY.

1100 Hibiscus, 2 1/2-inch, fine.....	Per 100 \$ 3.75
250 Jasmine grandiflorum, 2 1/2-inch.....	5.00
500 Double Alyssum, for winter bloom.....	2.50
2500 Smilax, nice, 2 1/2-inch.....	2.00
1500 Primula Obconica, 2 1/2-inch.....	4.50
400 Asparagus tenuissimus, 2 1/2-inch.....	3.50
300 Ampelopsis Veitchii, 2 1/2-inch.....	3.00
2000 Roses, TEAS, in variety, 3-inch.....	5.00
400 " Hermosa, 3-inch.....	4.00
300 " Lady Washington, 3-inch.....	5.10
400 " Duchesse d'Angoulême, 3-inch.....	5.10
200 " Mme. Joseph Schwartz, 3-inch.....	5.00
500 Carnations, FORTIA, the clumps.....	9.00
2500 Geraniums, the variety, 3-inch.....	5.50

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(Independence is well located for shipping, being 8 miles east of Kansas City.)

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2000 Rooted Cattinies Colons.....	Per 100 \$ 1.25
100 Tuberosus Beconias, 2 1/2-inch pots.....	6.00
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Mrs. Andrew Carnegie, 2 1/2-inch pots.....	each .75

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R. S. BROWN & SON, Wholesale and Retail Florists, KANSAS CITY, MO.

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" " " medium	10 00
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Passiflora Trifasciata, fol. finely var.	8 00
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" A. B. Clark, 6 inches high, leaf serrated, green edge, pink center. Extra	6 00
Geranium Snow Storm, best variegated sort, either for pots or bed'g	6 00
Pelargonium, or Lady Washington Geranium	\$6 00 and 8 00
Abutilons, fine kinds	4 00
Achyranthes	3 00
Alternantheras, of sorts	2 00
Alyssum, 2 kinds	3 00
Anthericum vitatum	6 00
" picturatum	10 00
Begonias, Flowering, of sorts	4 00
" Rex, of sorts	\$5 to 16 00
Croton, narrow leaf	8 00
Cuphea or Firecracker Plant	3 00
Cyperus alternifolius	8 00
Echeveria glauca	\$2 50, \$4 00 & 5 00
Euphorbia splendens	\$4 00 & 6 00
Ferns, in sorts	8 00
Geraniums, double and single, \$3 to	4 00
" Ivy, in sorts	4 00
" Mmie. Salleroi	3 00
" scented, in sorts	3 00
Hibiscus, of sorts	4 00
Hollyhocks, of sorts, fine plants	\$6 & 8 00
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Nasturtium, new double red	4 00
Pilea arborea (Artillery plant)	3 00
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Have many varieties of plants not mentioned here. Send for Trade List.

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NEW CROP SEED OF THOSE STANDARD VARIETIES AFTER JULY 1st.

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PLANTS, large size in bloom for winter flowering, \$1.00 per hundred, \$5.00 per thousand. Cold frame size, nice plants 50 cents per hundred, \$5.00 per thousand.

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Send 4 cts. postage for sample and prices.

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Wisconsin Blue Spruce. The finest of all in form and color. Well furnished, selected trees, carefully packed in light, strong crates, containing 25, 50 and 100 trees, delivered, Freight Charges Paid, to any point within 500 miles of Chicago, at prices here quoted:

	25	50	100
4 to 6 feet.....	\$ 3.50	\$ 6.00	\$10.00
6 to 8 feet.....	6.00	11.00	20.00
8 to 10 feet.....	10.00	16.00	30.00
10 to 12 feet.....	15.00	25.00	45.00
12 to 14 feet.....	20.00	35.00	60.00

Special correspondence solicited on car lots.

As the Western Classification of roads now exact, by a recent ruling, ACTUAL PREPAYMENT of all freight charges on Christmas Trees, I am obliged to assume these charges, and also all risks of transportation; hence I am under the necessity of insisting upon the following

TERMS OF PAYMENT:—At least one-half cash with order; balance 30 days approved credit. All bills to be paid not later than January 1st, 1890. No attention will be paid to orders not complying with above terms.

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Send 10 Cents for
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PANSIES. QUALITY HIGH. PRICES LOW.

I attend personally to selecting the finest specimens only, for my seed bed, trying the various novelties and discarding those without special merit. Growing seed enough only to produce what plants I sell, I can make a finer selection than if grown in quantity.

From the sale of over **100,000 Plants** last season I have received numerous recommendations. Not one complaint.

PRICES : Good stocky plants from seed beds, 75 cents per 100 free by mail, \$5.00 per 1000 per express. Send for circular.

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FLORISTS
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SEEDSMEN
write to
The Aldine Printing Works, Cincinnati, O.,
for samples and prices before ordering
elsewhere.

[Mention The American Florist.]

Minneapolis.

This season has so far been very favorable for those florists who are "a little behind." Several have been so far behind in preparation for winter that a good hard freeze would have done them serious damage and Minnesota has been known to freeze up even in September.

Every florist here seems to be very favorably impressed with steam for heating in this climate. Of the four new places built this year, every one is fitted with steam heating apparatus. Mr. Mendenhall has put steam pipes into a part of his houses without removing the hot water pipes; surely both will give enough heat, even for a Minnesota winter.

We would like to know the cost of heating in the east as compared with the west, and I wonder if the AM. FLORIST could not be prevailed on to receive figures of this nature and next summer publish a table showing the cost of heating in different sections of the country, by the different methods and different kinds of fuel. We do not believe the cost of heating per thousand feet is much less in the east than in the west, as the difference in the atmosphere probably more than compensates for the difference in degrees of cold. Possibly the cost of fuel may be in favor of the east, but the amount of fuel used must of course be the basis of comparison.

Roses are doing finely, so far in fact supply almost exceeds demand, which was never known here before. The favorable weather has undoubtedly forced the bloom along early and later they may not be as plentiful.

Chrysanthemums are just coming into flower with fine grown specimens in almost every house. The dry season here the past summer has made dwarf plants in some instances. S.

HUGHES

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FLORISTS AND NURSERYMEN SHOULD NOT BE WITHOUT IT.

Unsurpassed as an insecticide, it kills effectually all parasites and insects which infest plants whether at the roots or on the foliage, without injury to tender plants: such as ferns, etc., if used as directed. Used as a WASH it imparts the gloss and lustre to the foliage which is so desirable on exhibition specimens.

It kills insect life on man, animal, or plant, without injury to the skin, wherever parasites may appear.

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Samples and price list free on application.

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Respectfully, **PITCHER & MANDA.**

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Trains leave Christopher or Barclay Street, New York City, for Short Hills, 7.30, 8.40, 10.10, A. M.; 1.30, 2.30, 4.00, 4.30, 5.20, 5.40, 6.00, P. M.

Leave Short Hills, 9.50, 10.20, 11.00, A. M.; 12.15, 1.44, 3.00, 5.08, 6.58, 8.34, P. M.

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APPLE,		PEAR.	
	Per 1000		Per 1000
Seedlings, 1 year, 6 to 8 millimeters.....	\$ 3 29	Seedlings, 1 year, 5 to 8 millimeters.....	\$ 3 70
" 1 year, 3 to 7 ".....	2 49	" 1 year, 3 to 7 ".....	2 89
" 1 year, 4 to 6 ".....	1 40	" 1 year, 4 to 5 ".....	1 10
" 1 year, 3 to 5 ".....	.89	" 1 year, 3 to 4 ".....	.70
CHERRY,		QUINCE—Angers.	
MAHALEB, 1 year seedlings, 5 to 10 millim..	2 00	Cuttings, 7 to 12 millimeters.....	5 60
" 1 year seedlings, 4 to 5 ".....	1 70	" 4 to 10 ".....	4 40
" 1 year seedlings, 3 to 4 ".....	1 00	" 5 to 7 ".....	3 40
MAZZARD, 1 year seedlings, 6 to 10 ".....	3 00	NORWAY SPRUCE.	
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1 year seedlings, 5 to 8 millimeters.....	2 07	3 years, " 5 to 12 inches.....	1 20
1 year seedlings, 4 to 5 ".....	1 70	4 years, seedlings, 8 to 16 inches.....	.60
1 year seedlings, 3 to 5 ".....	1 15	3 years, " 6 to 10 inches.....	.75
		2 years, " 4 to 6 inches.....	.30

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A St. Paul florist writes: "Am very glad to see that you are attempting to make florists understand that in our business as well as any other we shall not create a demand for our goods by circulating exaggerated reports of high prices received. It is very good advice you are giving us when you say that every florist should do his best to let people know that flowers are sold at only a moderate advance over cost of producing. You see I have started the ball rolling by giving a reporter for a daily paper the points for enclosed item."

"I would further suggest that when a reporter comes in to interview you don't turn away with a short 'Have no time,' or something of that nature. Give him five or ten minutes of your time and a few sensible suggestions. It will pay every time."

We give the clipping below:

"It is very unfortunate that it is generally believed that cut flowers are very high priced, and that none but the rich can afford them. This is not the case in St. Paul, and at present, while the trade is dull, waiting to be revived and enlivened by the slowly approaching social season, flowers, and good flowers, can be purchased at exceedingly low figures. A prominent florist in this city said the other day that their trade had been greatly hurt by it being understood that roses were an expensive luxury, and newspaper reports, he believed, were largely responsible for this, as they often spoke of the great expense of certain floral pieces or decorations. At present roses are more in fashion than any other flower, and some of the best ones are but 1¢ per dozen, while the highest do not exceed 25¢."

MOORESTOWN, N. J.—Isaac C. Rogers has recently started in the florist business on a small scale. He has 500 feet of glass.

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Emblems, Monograms, Etc.

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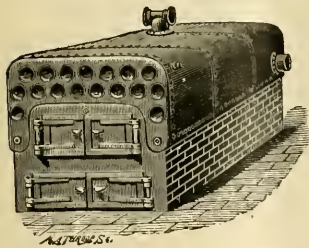
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WE CARRY
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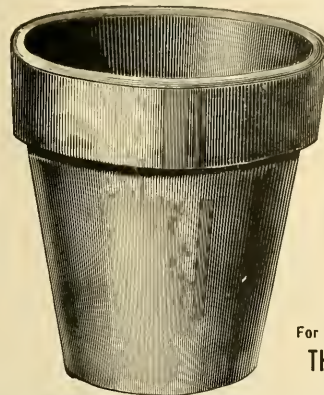
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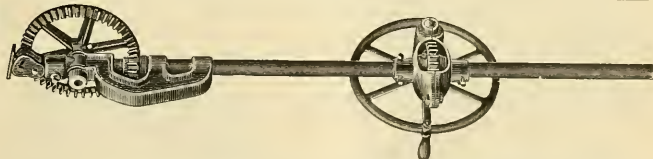
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1 3/4 in.	\$2 88	4000	\$12 00	\$11 50	3 1/2 in.	\$7 50	770	\$6 00	\$5 75
2 "	3 32	3168	11 00	10 50	4 "	9 25	570	5 50	5 25
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Index to Advertisers.

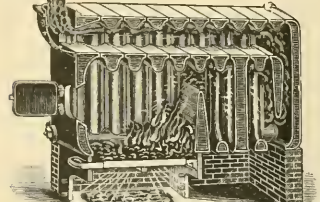
Advertising Rates, etc.	140
Aldine Printing Wks.	147
Allen, W. S.	141
Association Flora	145
Bayard-Dorset M & Co	150
Bell W. T.	144
Bernard G.	143
Benz Albert.	147
Berger, H. H. & Co.	148
Blackley Printing Co.	148
Biane A.	143
Boynston W. D.	147
Brague L. B.	144
Brackenridge & Co.	148
Brothers Paulinus.	143
Brown H. S. & Son.	147
Burrow J. C.	144
Laidwell Geo W.	145
Carmody J. D.	152
Chandler H. B. & Son.	140
Clark G. R. & Co.	144
Detillipi Jos.	148
DeVeer J. A.	145
Devine, Peter.	151
Diez, John L. & Co.	151
Dillon, J. L.	141
Dreer, H. A.	148
Ely Z. De Forest.	145
Fassett, F. E. & Co.	141
Faxon M. B.	145
Fisher Bros. & Co.	146
Fink Chas. H.	146
Foster F. W. & Co.	150
Fueller P. C.	151
Gardiner Jno & Co.	146
Garfield Park Rose Coll.	141
Greene W. N. Son & Sayles.	146
Grimth, Jas.	150
Grimth, N. S.	145
Halen, H. W.	144
Hall O. H.	146
Hallock V. H. & Son.	145
Hammond, Ben.	145
Hantsch Rudolph.	150
Hartland W. B.	145
Hescock Jos.	145
Herendeen Mfg. Co.	152
Herr, Albert M.	147
Hippard E.	150
Hitchings & Co.	152
Hooker, H. M.	150
Horan, Edw. C.	141
Horan Jas.	143
Hoyt R. D.	148
Hudson John M.	141
Hughes E. G.	148
Indianapolis Chrysanthemum Show.	142
Ives, J. H.	150
Jennings P. B.	147
Johnson & Stokes.	144
Kennicott Bros.	141
Kimball A. S.	141
King Jas.	145
Kramer N. & Son.	146
Krick, W. C.	150
Laine John & Sons.	147
Lamb James M.	145

La Roche & Stahl.	141
Lamer A.	143
Laurence.	143
Lockland Lumber Co.	149
Long Geo. A.	147
Low Hugh & Co.	148
McCarthy J. F. & Co.	141
McFarland J. Horace	147
Marc Gabriel & Co.	146
Mathews, Wm.	148
Merrick A. T.	147
Meyer Andrew.	145
Michel Plant & Seed Co.	147
Miller Geo. W.	146
Mooy Polman.	144
Millen Geo.	141
Peley A.	144
Pendock Chas. E.	141
Perkins, J. N.	151
Pierce Butler & Piercelis.	141
Pierson F. R.	144
Pike Co Nurseries.	152
Pitcher & Mandus.	149
Plenty, Josephus.	151
Pnetz Arnold.	149
Puncker City Mch.	150
Racon C.	149
Reed & Keller.	150
Ronald Jos.	144
Richers F. A. & Solme.	148
Roach J. B.	145
Seiners J.	146
Rolker, A. & Son.	146
Ross & Millang.	141
Schiller & Matias.	146
Schulz Jacob.	143
Scollay, John A.	152
Scott Robt. S.	143
Schelmire W. B.	144
Sheridan W. F.	141
Siehnrecht & Wadley.	148
Situations. Wants.	143
Smith David.	152
Smiths Fowell & Lamb.	149
Spaulding Thos.	144
Spooner Wm. H.	145
Steffens N.	150
Stewart, Wm. J.	141
Strauss C. & Co.	141
Studer N.	149
Taplin S.	146
Thompson Mrs. J. S. R.	145
Thorpe John.	144
Tritschler M. & Son.	148
Tuttle Sidney & Co.	143
Van der Schoot & Son	145
Vaughan, J. C.	141
Weathered, Thos. W.	152
Weich Bros.	141
Willidin Pottery Co.	151
Wilks S. Mfg. Co.	151
Williams H. W. & Son.	151
Wisconsin Flower Ex.	141
Withold Geo.	148
Wolff, L. Mfg. Co.	150
Wood Bros.	143
Young, Thos. Jr.	141
Zirngiebel D.	147
Zoecker & Co.	143

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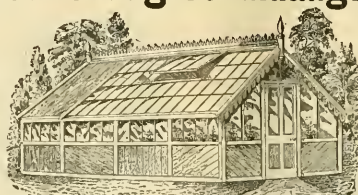
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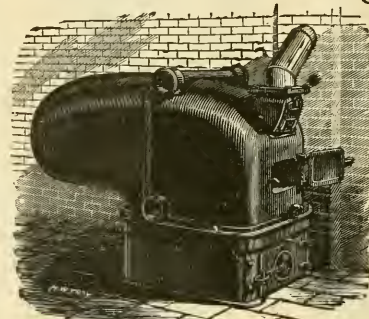


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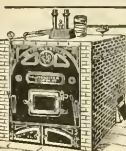
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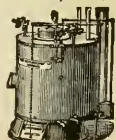
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Vol. V.

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THE AMERICAN FLORIST

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SOCIETY OF AMERICAN FLORISTS.

J. M. JORDAN, St. Louis, Mo., president; M. H. NORTON, Boston, Mass., vice president; Wm. J. STEWART, 67 Bromfield St., Boston, Mass., secretary; M. A. HUNT, Terre Haute, Ind., treasurer. The sixth annual meeting at Boston, Mass., August, 19, 20, 21, 22, 1890.

CONTENTS.

Chrysanthemum show at Chicago.	183
" " at Indianapolis.	184
" " at Short Hills.	185
" " at Montreal.	186
" " at Germantown, Pa.	186
" shows at other points.	186
William H. Spooner (portrait).	187
Urn filled with flowers (illustration).	187
William H. Spooner.	187
New Gladiol.	187
Tuberous begonia.	188
Chrysanthemums out of doors.	188
" at Boston.	188
Mountain fleece (with illustration).	189
What is a sport.	189
Orchids for cut flowers.	190
Cheap ventilating apparatus (with sketch).	190
Nomenclature.	190
Canua Virginia Day.	191
Roses—Price of good flowers.	192
Soils.	192
Useful summer blooming flowers.	193
Flowers in parks.	193
News notes.	194
Boston.	194
Obituary—Andrew Eadie.	194
Cut flower quotations.	195
Seed trade.	195
A recent dialogue.	196
Chinese sacred lily.	197
Toronto.	197
Fumigating.	197

IF YOU have anything to sell to florists, nurserymen or seedsmen, advertise it in the AMERICAN FLORIST and you will find a buyer if it is a salable article.

IF YOU have any trashy stuff you want to sell don't advertise it in the FLORIST, but if you have a good article and want to sell it at a fair price you can find buyers by advertising in these columns.

ADVERTISERS should bear in mind that the FLORIST is a strictly trade paper and that wholesale price lists may be published in its columns without fear that the wholesale rates there given will be seen by retail buyers. Subscriptions from those who are not in the trade are invariably refused by us. Among those in the trade, we include employees of commercial florists and private gardeners who have charge of greenhouses.

Chrysanthemum Show.

Chicago.

In spite of the week of dark weather which preceded it and many other drawbacks the Florist Club's exhibition was a decided success.

The center of the immense army was devoted to beds of chrysanthemum plants arranged in various forms in such a way as to allow a good view of them from every direction, all being placed on the floor; surrounding these and interspersed among them were tasteful groups of decorative plants forming a very happy combination. The bulk of the latter came from the greenhouses of J. T. Anthony, who while nearly emptying his greenhouses into the exhibition hall made no entries for competition. D. B. Fuller also displayed decorative plants and cut flowers not for competition. The tables for the cut flowers were arranged along each side of the hall.

The largest exhibitors of chrysanthemum plants were Mrs. S. P. Gardner, who received the special prize of \$100 for best display of named varieties, John Goode & Co., John Lane and Geo. Maclure, gardener for H. R. McCormick, each of whom received honorable mention. Messrs John Lane and John Goode & Co. showed some excellent plants and were not many points behind the prize winner, though Mr. Lane's plants were not entered for competition. Mr. Maclure's plants were small—from late spring cuttings—but had been admirably handled and the blooms were most excellent. They were also exceedingly well arranged and were a most attractive feature. D. B. Fuller had in the hall a bed of well grown Gloriosums, also a bed of white and pink varieties. Mr. Lane exhibited a yellow seedling which promises to make a place for itself.

In cut blooms E. Weinhoeber & Co. were especially strong showing some exceedingly well grown flowers and a large quantity of them. Messrs. John Lane and O. P. Bassett also showed some handsome cut blooms, a white variety shown by the latter was exceptionally handsome and many inquiries for its name were heard, but none could give it. Mr. Bassett says the label was lost from the plant and he doesn't know himself what it is. It strongly resembled Mrs. Alpheus Hardy without the hairy covering. Patterson & Wolcott and Jno. S. Forster each had a good showing of cut blooms, among the latter's being 18 seedlings worthy of notice. But the banner exhibit of cut blooms—as far as quality was concerned—was that of Pitcher & Manda, Short Hills, N. J. In this collection Mrs. Alpheus Hardy was of course the central figure and the blooms were a revelation to some of the local growers

who had been carefully nursing measly little flowers of the same variety. Some of them had been condemning the variety, but after seeing these blooms they walked quietly and thoughtfully away. Every one of the flowers in this collection was worthy of special mention, but space forbids, though we can not pass without mentioning Adirondack, a superb white, Ramona, a handsome yellow, La Tosca and Cythere, of shades difficult to describe. Siebrecht & Wadley, New Rochelle, N. Y., had among their orchids a few seedling chrysanthemums, among them a pink one which is certainly promising and all were good.

The displays of cut roses, carnations, violets, etc. were most creditable, while the collections of orchids shown by Siebrecht & Wadley, New Rochelle, N. Y., and the Neal Floral Co. of this city were decided attractions. The roses and carnations shown by E. Weinhoeber & Co. and O. P. Bassett were worthy of every commendation, and Jas. D. Reynolds was also to the front in roses.

But what proved to be a strong drawing card of the exhibition was the parlor and table decorations. For the former spaces about the size of the average parlor had been partitioned off at one end of the hall and these were most elegantly furnished and then decorated with plants and flowers by the various competitors. And how the ladies did flock in and how they did examine these beautiful rooms, and they were worthy of all the praise bestowed upon them.

That decorated by F. F. Bentley and which received the first prize of \$200, was a gem, particularly the mantel decoration. The mantel proper was most gracefully banked with fine ferns with a superb bunch of American Beauty roses in the upper left hand corner, while to the right was a most exquisitely arranged bunch of orchids. A scarf of old gold colored chrysanthemums hung from the mantel, while the grate was banked with ferns of bolder habit than those used on the mantel. Two corners of the room were occupied by groups of palms, and in another stood a small table bearing a tall vase of Bon Silene roses surrounded by adiantum ferns at the base. There was a slight draping of smilax around the room at effective points.

E. Weinhoeber & Co. received the second prize of \$125. In this room the mantel decoration was entirely of ferns, and it was a charming study in foliage contrast. Mr. W. J. Smyth, formerly of Boston, but now with Messrs. Weinhoeber & Co., did the arranging and should receive much credit for his admirable work, though for an every day decoration some flowers should have been added. The grate was banked with palms and ferns and no colors were to be seen in the entire mantel arrangement except shades of green. In two corners

of the room stood stands each bearing a small specimen palm with ferns at its base. In the other corner was an opera basket of Mermets on a stand, while on the center table was a large basket of handsome American Beauties. Smilax was very gracefully draped overhead and over the entrance and a few pictures on the walls added an effect missing in the other rooms.

The third prize of \$75 went to Charles Reissig who gave Messrs. Weinhoeber & Co. a hard push for second place, losing it by only a few points. Mr. Reissig's mantel decoration was also superb (in fact all three were so excellent that it was a hard matter to choose between them), it was a very graceful combination of small palms, ferns and orchids and the grate was filled with chrysanthemum sprays, palms and crotons. There were groups of palms and ferns in three corners of the room. On the wall to the right of the mantel was a panel of adiantum ferns with a bunch of Buttercup carnations in the center while on the opposite wall was a similar panel with a sash of Grace Wilder carnations running diagonally across its face, from which fell away on each side heavy curtains of smilax studded with carnations on one side and lily of the valley on the other. On the center table stood a bowl of American Beauty roses.

The strain of the lively competition in the parlor decorations was so great that only one came to the scratch with a table decoration the next day. That one was Chas. Reissig and of course he had a walk away with a very handsome arrangement consisting mainly of Mermets roses. There were three entries for the \$25 special for center piece for lunch table, which was taken by F. F. Bentley with an arrangement of La France roses and ferns.

Following is the list of other prizes awarded: Special prize of \$25 for best collection chrysanthemum cut blooms, named varieties, John Lane; best general display of cut chrysanthemum blooms, 1st \$25, E. Weinhoeber & Co.; 2nd \$15, Patterson & Wolcott; 3d \$10, John Lane; collection cut sprays in vases, one of a kind, 1st \$15, O. P. Bassett; 2nd \$10, Mr. Saxen; 3d \$5, John Goode & Co.; 12 naturally grown sprays, 1st \$5, John Lane; 2nd \$3, Jno. Goode & Co.; 12 blooms, one of a kind, 1st \$9, Goode & Co.; 2nd \$6, John Lane; best arranged basket in style \$20, F. F. Bentley; best arranged center piece for buffet table \$35, F. F. Bentley. In cut roses J. D. Raynolds received 1st \$3, for best 12 Mermets and Perles, and 1st \$5, for any new variety, 2nd \$1.50, for Brides, Bon Silenes and Contiers; E. Weinhoeber & Co. took 1st \$3, for La France, Brides, Bennetts, Cusins, Bon Silenes and Contiers, also \$5 for American Beauties and 2nd \$1.50, for Mermets and Perles; O. P. Bassett 1st \$3, for Niphetos and 2nd \$1.50, for La France, and 2nd \$2.50, for American Beauties. In cut carnations E. Weinhoeber & Co. received 1st \$3, for Grace Wilder and Garfield, and 2nd \$1.50 for Hinz's White; F. Timme 1st \$3, for Hinz's White; N. Singler 1st \$3, for Silver Spray; E. Weinhoeber & Co. 1st \$3, for double violets; Neal Floral Co. special prize of \$25 for cut orchid blooms.

The special of \$25 for best general display of cut roses on the third day was captured by E. Weinhoeber & Co. Their American Beauties and Bennetts were especially fine and the whole display was a credit to the exhibition. Geo. Klehm won 1st, \$5, for lily of the valley, and also displayed some La France roses

which would have made his exhibit a feature of the show had they not been removed from the building by an officious employe, without authority, shortly after the awards were made.

H. A. Dreer, of Philadelphia, made an attractive show of palms and ferns of trade sizes, and Fisher Bros. & Co., of Montvale, Mass., showed Adiantum cuneatum and Farleyense. Mr. Dreer's exhibit was in charge of Mr. W. Mott, who was pressed into service as one of the judges of plants and cut flowers.

The method of judging the floral arrangements was quite a departure. After some consideration on the part of the club it was decided that none could be better judges of such work than their best patrons and especially those known to the florists as lovers of flowers, and with some doubt as to whether the services of such could be secured invitations were sent out to a score of the best known society ladies in the city; eleven accepted and made an admirable committee, performing their duties carefully and conscientiously, and all expressed themselves as very much complimented by being selected for the duty, and the value of such an award to the lucky recipient can be readily appreciated by those in the trade.

Indianapolis.

The third annual chrysanthemum show of the Society of Indiana Florists was opened with a graceful speech by Mrs. Mayor Denny, who in well chosen language spoke words befitting the occasion and scene. Our President, M. A. Hunt, fittingly responded and in a few minutes talk set forth the educational and refining influences which follow the exhibition of flowers such as was presented in the hall that night.

Interest at once centered in the contest for the National Prize, the cup offered by Mrs. President Harrison. There were 24 entries for this prize, five by Mr. T. H. Spaulding, two by John Thorpe, one by Henry Reiman, one by Hill & Co., 14 by Fred Dörner and one by John Hack. It was found necessary to use the word "undisseminated" instead of "unnamed," as published in the FLORIST, as nearly all the seedlings came named. The variety "Ada Spaulding" was finally decided the winner by several points, but it took the judges a long time to decide, so excellent were five or six others among the seedlings exhibited.

Mistletoe (Dörner), a whorled incurved of a most peculiar shade, silvery mauve upper side of petals a deep wine; Emily Dörner (Dörner), bright amber yellow, heightened in color at the center; Mrs. Benjamin Harrison (Spaulding), a magnificent variety of the Mrs. Wheeler type; Cyclone (Spaulding), a large whorled incurved, white, a flower of splendid size and substance; E. G. Hill (Spaulding), a large reflexed variety, bright orange yellow shaded slightly with carmine; Rosebank Gem (Thorpe), reflexed Japanese, eight inches in diameter, color a violet shaded heavily with lavender; Clara Reiman (H. Reiman), silvery rose in color, suffused with light yellow—a pleasing hue—of fine form. All the above were awarded "certificates of merit," and can be depended on as being first class in every respect. The judgment of the committee was that the balance of the entries be given another year's trial before offering for sale, which was acquiesced in.

Triumph de Exp'n Marseilles, a French variety of this year, was awarded a certificate also. It is novel in form, peculiar

in color and well worthy the distinction accorded. It belongs to the reflexed section and is of a brown yellow color. The utmost care and caution was exercised by the committee who made the awards, and the varieties certificated can be depended on as being superior varieties.

Pot plants, best 25, 1st Henry Reiman, 2nd Fred Dörner, 3d Hill & Co., 4th Bertermann Bros. This was the "striking" exhibit of the show and it is only just to say that all the exhibits were creditable and well flowered. It will interest the readers of the FLORIST to learn the names of the most prominent varieties in the four entries for this premium: T. C. Price, Lillian B. Bird, Mary Wheeler, Mrs. Irving Clark, L. Canning, Miss Esmerelda, M. Boyer, W. H. Lincoln, Tokio, Duchess, Puritan, Richard Elliot, Cullingfordii, Frank Willcox, Mrs. A. Blanc, Walter Coles, J. Collins, Kioto, Lucrece, Mrs. Geo. Bullock, W. H. Singler, Mrs. E. W. Clark, Sunset, Mrs. C. H. Wheeler and Marvel.

L. Canning and Miss Esmerelda are ideal exhibition plants for growing in pots, and the nearer a variety conforms to these in general characteristics the more effective they are.

Mr. H. W. Reiman's plants were deservedly first, being of even growth and finely flowered. Mr. Reiman was first with best 10 whites; the most pronounced varieties were Puritan, L. Canning, Jessica, Robt. Bottomly and Boule d'Neige. He was also awarded the prize offered by Elverson, Sherwood & Barker, of the New Brighton pottery works, for best 10 plants introduced in '88, they were Richard Elliot, L. Canning, Mrs. E. W. Clark, Delie, Dr. Metzger, Dr. Stryker, Madam Drexel, Walter Coles, Mrs. A. Blanc and Mrs. Isaac C. Price.

Fred Dörner was first with best 5 standards, first with best 5 yellow, and first in 5 best pink, also took first in the class for 5 best red and bronze.

Bertermann Bros. took the prize offered by Hill & Co. for best 12 varieties of this year's American raised novelties. The varieties were Miss Esmerelda, Tasaka Kaka, Golden Star, Miss Mary Wheeler, Mrs. Irving Clark, Nessima, Excellent, T. C. Price, Llewellyn Violet Rose, Sunset and Mrs. Anna Hartshorn.

Excellent specimens of Mrs. Alpheus Hardy and Mrs. Andrew Carnegie were shown by H. W. Reiman, taking the prize of \$5 for best specimens of these noted varieties.

The award for best 300 cut blooms in 25 kinds, 12 flowers of a variety, was given to Mr. John Rose, gardener to F. T. McFadden, of Cincinnati, Ohio. Mr. Thorpe and other competent judges declared them the finest lot of cut blooms ever staged in this or any other country. An idea of their size may be formed when it is stated that many of the varieties were exceptionally large and most beautifully colored. Mention might be made of a few: Cullingfordii, 4½ inches over; Mrs. E. W. Clark, 9 inches; Mrs. A. Hardy, 6 inches; Mrs. Irving Clark, 9 inches; Mrs. Langtry, 9 inches; W. W. Coles, 10 inches; G. F. Moseman was the size of John Sullivan's boxing gloves; Marvel, 8 inches; and in fact the smallest in size was Cullingfordii mentioned above. The flowers of the different varieties were uniform in size and of most excellent quality. The collection was a grand exhibit of what can be done by good cultivation and reflects great credit on Mr. Rose. H. W. Reiman and Hill & Co. followed in order named. A few fine varieties were noted in the above as



WILLIAM H. SPOONER, PRESIDENT MASS. HORT. SOCIETY

follows: Kioto, Alpheus Hardy, L. B. Bird, W. H. Lincoln, H. Cannell, Mrs. Fottler, C. Orchard, Robt. Craig, George Atkinson, Mme. Louis Leroy, Mrs. W. K. Harris, Excellent, Mrs. I. Clark and Sunset.

Hill & Co. made the only entry for 50 French and English sorts. This was filled by entering the number called for, though this does not imply that they were 50 fine sorts by any means, on the contrary a good part of them should speedily be consigned to the rubbish heap. Exceptions that may be noted as good and distinct: Tri. de Exposition de Marseilles, Mme. Ed. Andre, Countess de Mun, Mme. Leveque, Countess de Paris and Mme. C. Richard among the French; Sunflower and Mr. C. Orchard are promising English varieties.

The New York prize offered by Peter Henderson was won by Mr. H. W. Reiman, who displayed good judgment and taste in his arrangement of his collection. Many varieties were shown, but did not differ materially from those mentioned in classes named above.

The first question asked by most of the growers present was, "how do the new varieties of this year compare with the old and more recent introductions?" Unquestionably many of the novelties of this year are decided acquisitions and distance the older ones in their respective colors and classes. Mrs. T. C. Price was considered by most to be the finest variety exhibited, it is certainly deserving of much praise; Mrs. Irving Clark, Lillian B. Bird, Mrs. Burpee, Kioto, Violet Rose, Mrs. A. Hartshorn, Excellent, Mary

Wheeler, Sunset, Mrs. Hardy and Mrs. A. Carnegie jump at once to the front as valuable.

The banquet and toasts were all in keeping with the excellent arrangements made by the committee, who are greatly indebted to Mr. Williams for untiring efforts to make everything pleasant and successful.

The judging was done by J. M. Jordan, our honored President of the S. A. F., and by that Prince of Florists "Uncle John" Thorpe. Mr. Thorpe being a competitor for the Mrs. Harrison cup, Mr. F. T. McFadden and John N. May did duty with Judge Jordan in deciding the National Prize.

A conference was had on the chrysanthemum, its culture, nomenclature and various items pertaining to exhibitions, the certificating of seedlings, etc. John Thorpe was never happier and never more willing to impart to others the benefit of his experience and counsel.

The designs were all excellent, and as far as designs can be were nicely made, the handwork on many of them being quite creditable.

Carmony as a poet is a grand success, as witness his effort on the menu card.

The Short Hills Show.

Among the autumn shows none can be more interesting than the recent display at the United States Nurseries. The invitations modestly called attention to an exhibition of orchids and chrysanthemums lasting from the 4th to the 9th of November, but it goes without saying,

that there were many interesting features outside of these two classes. The exhibition houses were arranged with infinite taste, fully demonstrating the advantages possessed by a greenhouse over any ordinary hall, especially in the matter of light.

Chrysanthemums are of course the first interest at this season, though the unfavorable summer has resulted in much disappointment. One naturally expected to see a good display of Mrs. Alpheus Hardy in this its first American home, nor was the expectation disappointed. The entire middle bed of the large chrysanthemum house was filled with this variety, represented by above two thousand plants. It is indeed a beauty; the blooms seem more uniformly fine than last year; probably the plant is improved in constitution. It is evidently a very tall grower; some of the large plants seen appeared to be about ten feet high. It is noticeable for its long stems, making it admirable for cutting; it is always seen with a single bloom to a stem, never in clusters. As for its purity of color and harmony of shape, and its snowy, downy texture, it has all been described often enough, though it can never lose its merits by repetition. Judging from a recent note in the *Garden* this variety has not done so well in England as here; the writer says that he only knows one grower who has any prospect of seeing the plant in good condition, but over-propagation is regarded as the cause of this disappointment.

Among new chrysanthemums, Dr. Walcott's group, as noted at Short Hills, is certainly of great promise; it contains several whites, which, apart from intrinsic beauty promise great things for the cut flower trade, for they show large flowers on long, sturdy stems, clothed with good foliage right to the top. Another good point about these plants is the simplicity of their names; they are good, honest American names, simple and distinct. Shasta is a large clear white, very full petalled; an early bloomer. Adirondack another very good white. Monadnock is a large, tubular-petalled yellow, remarkable for its lasting qualities. Ramona is another fine yellow, a very clear golden tint. Cortez a large dark flower oddly flecked with gold. Kioto, the grand yellow exhibited by Mr. Fewkes last year, more than fulfills its early promise, and so does Lillian B. Bird (awkward name, by the way). Mrs. Fottler, the lovely pluk so much admired last year, is still unapproached in its own peculiar tint.

A set of new varieties, as yet unnamed, received from Japan, show some promising novelties, and there are interesting seedlings from Mrs. Alpheus Hardy—all sorts of colors, but never a hairy one among them. One of them is a large pale pink bloom, the color rather suggestive of a La France rose.

An interesting French set of chrysanthemums contains some excellent early flowering sorts; Belle Pointeview, a good white Chinese, and La Fortune, a beautiful yellow, were very attractive. Mrs. Andrew Carnegie hardly bore out its former glories—the colors seemed dim when contrasted with brighter varieties. Very few anemone-flowered varieties were seen; the large Japanese and Chinese take the best.

One hardly expects to see much in the way of orchids at this season, but Short Hills is very fortunate in this respect, and there were some veritable gems in bloom. The great attraction was a fine plant of the superb *Vanda Sanderiana*, bearing

three spikes of bloom, twenty-four flowers in all. It was not only a very fine plant, but also a very fine variety, being remarkable for depth of color. The upper part of the flower displayed the lilac of a cattleya, contrasting wonderfully with the deep crimson veining beneath.

Highly unique was *Lelia Eyermaui* alba, the only specimen known to be in existence. Other interesting *Lelias* were the colored form of *L. Eyermaui*, *L. Gouldiana*, and *L. autumnalis* alba.

The display of *Cypripedes* was naturally very fine, including many rare forms. Among them was the unique *C. Masarelianum*, *C. Arthurianum*, *Schroderae*, *tessellatum*, *porphyreum*, *magniflorum*, and many others. *C. bellatulum* is a beautiful form; it is one of the few *Cypripedes* in which the lip is insignificant compared with the rest of the flower. Its color, a bluish, tinted white, spotted distinctly with deep crimson, makes it very noticeable.

The masses of *Cypripedium insigne* promise in all some 18,000 blooms, and there is any number of *Harrisianum*, *Lawrenceanum*, and *Sedenii*.

Vanda coerulea was noted in very fine variety—a very deep tint; there was a miscellaneous lot of good orchids, charmingly arranged.

In a group of *nepenthes* the very rare and beautiful *N. linata* was noted; it is remarkable, not only for its rarity, but also for the size and beauty of its pitchers. A rare *cycad* was *Zamia pumilus*, a very prickly-looking plant with glaucous leaves; a fine specimen is to be seen here.

Two new forms of the climbing asparagus were noted; a very feathery variety of *A. plumosus nanus*, and a variety with singular drooping leaves, *A. decumbens*.

The display of *anthuriums*, palms, pandanus and other decorative plants was fine and very tastefully arranged. A tremendous stock of cattleyas was to be seen, which will make a grand show later on. It is the intention of this firm to give an orchid exhibition during the winter; the number of plants then in bloom will mount up into the thousands, and it will no doubt be a success as unqualified as the show now under discussion, which was certainly worthy of all praise.

EMILY LOUISE TAPLIN.

Montreal.

The first chrysanthemum show of the Florist Club which opened November 5 was far ahead of anything of the kind even seen in this city, and considering the unfavorable season was a very creditable show, though it will undoubtedly be improved upon another year.

The local papers were very free with favorable comments, the weather was all that could be asked and the attendance was good.

The first prize for 12 specimens was taken by J. Kirkwood with the varieties: *Ceres*, *Tokio*, *Mme. Delaux*, *Source d'Or*, *Gloriosum*, *Bouquet Fait*, *Mme. C. Audiguer*, *Fair Maid*, *Rubra striata* and *Elaine*. The same grower took first prize for 3 tasseled, with *Gloriosum*, *Mme. C. Audiguer* and *Rubra striata*. J. Bennett was 1st for single specimen any variety with *Gloriosum*. For the best bank, *Wiltshire Bros.* were 1st with a nice lot of plants, among which were *Duchess of Connaught*, *Mme. M. Fabre*, *Fabias de Maderanaz*, *Golden Empress of India*, *Mrs. Howe*, *L'Isle de Plaisir*, *Elaine*, *Source d'Or*, etc.

In cut blooms P. McKenna & Son were first with good blooms of *Mrs. Humphreys*, *Pres. Arthur*, *Lord Derby*, *Gloriosum*, *Peter the Great*, *Source d'Or*,

Golden Prince, *Comte de Germiny*, *Fimbriatum*, *John Welch*, *Mons. Bouchardet*, and *Ductess*.

There was a good display of cut roses. J. H. Dunlop, of Toronto, sent some fine blooms of *La France*, *American Beauty*, *Puritan*, *Mme. Hoste*, *Mme. de Watteville*, *Primrose Dame*, and others. The exhibits from local growers were very good, some *Brides* and *Cooks* from J. Bennett being extra good, while P. McKenna had fine *Beauties* and *Gontiers*. E. Graves, *Wiltshire Bros.* and C. Campbell also had good lots. In carnations Garfield was the best red, *Grace Wilder* for pink, while *Silver Spray* was first as a white; a fine vase of *Andalusia* was shown by P. McKenna & Son.

A very nice table was shown by W. *Wiltshire*, gardener to Hon. J. C. Abbott, among which were fine plants of *Cypripediums*, *vandas*, *calanthes*, etc. J. Doyle, gardener to W. R. Elmenhorst, J. Dunbar, gardener to H. M. Allan, J. Betrix, gardener to A. Allan, and W. *Wiltshire* sent a number of plants to decorate the hall, which added greatly to the effect.

Following is the list of awards: 12 chrysanthemums, 1st J. Kirkwood, 2d *Wiltshire Bros.*, 3d J. Bland; 3 chrysanthemums, reflexed, 1st J. Kirkwood; 3 chrysanthemums, tasseled, 1st J. Kirkwood, 2d J. Bennett; 1 chrysanthemum, specimen, 1st J. Bennett, 2d J. Kirkwood, 3d *Wiltshire Bros.*; standard, 1st *Wiltshire Bros.*, 2d J. Kirkwood, 3d J. Bland; 6 in 5 inch pots, 1st J. Bennett, 2d Geo. Trussell, 3d J. Eddy; bank of chrysanthemums, 10x4 feet, 1st *Wiltshire Bros.*, 2d J. Bland, 3d J. Bennett; bank of chrysanthemums, 6x4, 1st J. Eddy, 2d P. McKenna & Son, 3d *Wiltshire Bros.*; 3 *Primula obconica*, 1st J. Welch, 2d P. McKenna & Son, 3d J. Bennett; 6 carnations in pots, 1st P. McKenna & Son, 2d B. T. Graves, 3d C. Campbell; 6 geraniums in pots, 1st *Wiltshire Bros.*, 2d Geo. Trussell; 2 *solanums*, 1st *Wiltshire Bros.*, 2d C. Campbell, 3d J. Bland; 1 *Salvia splendens*, 1st J. Welch, 2d T. Wootton, 3d J. Eddy; 3 flowering begonias, 1st J. Bennett, 2d *Wiltshire Bros.*. Cut blooms: 12 chrysanthemums, 1st P. McKenna & Son, 2d *Wiltshire Bros.*, 3d J. Bland; 6 chrysanthemums, reflexed, 1st *Wiltshire Bros.*; 6 chrysanthemums, tasseled, 1st *Wiltshire Bros.*, 2d P. McKenna & Son; 6 pompons, 1st P. McKenna & Son; 6 roses, C. Mermet, 1st J. Bennett, 2d C. Campbell, 3d B. T. Graves; 6 roses, *Brides*, 1st J. Bennett, 2d *Wiltshire Bros.*, 3d C. Campbell; 6 roses, *Perles*, 1st J. Bennett, 2d P. McKenna & Son, 3d *Wiltshire Bros.*; 6 roses, *Gontiers*, 1st P. McKenna & Son, 2d J. Bennett, 3d *Wiltshire Bros.*; 6 roses, *Niphetos*, 1st J. Bennett, 2d B. T. Graves; 6 roses, *Woottons*, 1st J. Bennett; 6 roses, *Beauties*, 1st P. McKenna & Son; 6 roses, *Cooks*, 1st J. Bennett; 12 carnations, white, 1st P. McKenna & Son, 2d *Wiltshire Bros.*, 3d C. Campbell; 12 carnations, red, 1st P. McKenna & Son, 2d C. Campbell, 3d *Wiltshire Bros.*; 12 carnations, pink, 1st P. McKenna & Son, 2d C. Campbell; collection of *bouvardia*, 1st *Wiltshire Bros.*, 2d P. McKenna & Son; 3 varieties of *bouvardia*, 1st *Wiltshire Bros.*.

Germantown, Pa.

The display at the chrysanthemum show eclipsed that of last season in every particular.

The following first premiums were awarded: Private gardeners' list for collection of 12 plants, Jos. Shaw; collection of 6 plants, Wm. Beasley; collection of 3 plants, Jos. Shaw; single specimen, yel-

low, M. Clifford; specimen plant, white, M. Sammon; specimen plant, any other color, M. Sammon; nurserymen and florists' list, first, for 12 plants, *Woltemate Bros.*; collection of 6 plants, *Woltemate Bros.*; collection of 3 plants, *Woltemate Bros.*; specimen plant, yellow, Thomas Meehan & Son; specimen plant, white, *Woltemate Bros.*; specimen plant, white, *Woltemate Bros.*; specimen plant, amateur's list, collection of 3 plants, B. S. Phillips; specimen plant, any other color B. S. Phillips; list open to all, collection of at least 6 seedlings, M. McCleary; best seedling specimen, M. Sammon; 6 standards, *Woltemate Bros.*; design of cut flowers other than chrysanthemums, J. W. Young; design of chrysanthemum blooms, *Woltemate Bros.*; collection of 24 cut roses, six varieties, Edwin Lonsdale.

PLYMOUTH, MASS.—A few gentlemen interested in chrysanthemums held an exhibition at Plymouth on Tuesday, Wednesday and Thursday, November 5, 6 and 7. The hall was filled with plants that showed a great amount of care and attention and the show reflected a great deal of credit upon the promoters, Messrs. Hubbard and Robinson. Prizes were awarded for the best display to Mr. Robinson, second best to Miss Jackson, third best to Mr. Stranger. For the best plant, Mr. Hatch.

SYRACUSE, N. Y.—The first annual chrysanthemum exhibition and flower show of the Central N. Y. Hort. Society, November 7 and 8, was a most creditable display, said by good judges to be a decided advance on any previous exhibition seen in this city. In addition to the exhibits from local growers which were excellent, especially that of L. E. Marquise, there were some beautiful specimens of cut flowers from Pitcher & Manda, Short Hills, N. J.

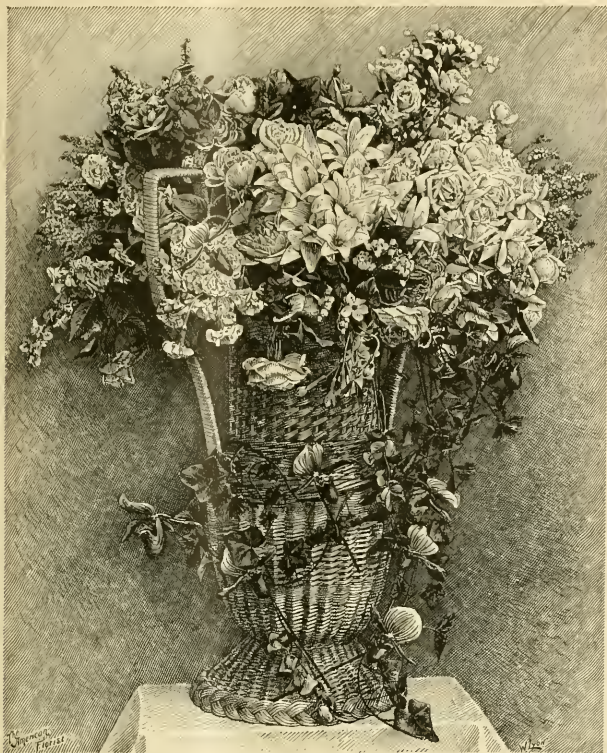
CHARLESTON, S. C.—The chrysanthemum show, held November 5 to 8, greatly surpassed all previous exhibitions of the kind given in this city. There was a fine display of well grown chrysanthemum plants of the newer varieties and the exhibits of cut chrysanthemums and roses were exceptionally excellent, many of the latter being shown by exhibitors from surrounding cities who carried home with them many of the prizes.

ERIE, PA.—The Chrysanthemum Club's exhibition November 5 to 7 was a most gratifying success, the display being described by the local press as far surpassing any similar exhibition ever seen here. The principal exhibitors were H. Tong, W. Niemeyer, Titus Berst, E. Newburger, John Roberts and Mr. Hansman, of this city, and Welch Bros., of Boston, and E. S. Bartholamew, of Westfield, N. Y.

ATLANTA, GA.—The chrysanthemum show held in the rotunda of the new Capitol November 5 and 6 was an excellent display. Admission was free and the attendance was large. In addition to the local exhibitors W. B. Woodruff, Macon, showed 200 excellent plants.

SCRANTON, PA.—There was a large attendance at the chrysanthemum exhibition given by Clark & Co. at the armory, which was an excellent display and was much complimented by the local press.

IF YOU HAVE not personally reported to us the branch of the business you are engaged in and the number of feet of glass on your place, send it in at once so that you may be correctly classed in our new trade directory. Don't wait, do it now.



URN FILLED WITH FLOWERS.

Urn Filled with Flowers.

In this we endeavored to maintain the outline of the urn. A plant of English ivy was plunged into the moss and the vine carelessly twined around the body of the urn. A few cypripediums scattered through the vine gave rather a pleasing effect. One of the bad features is the wired candidum lilies; necessity compelled this. The effect would have been much better had they been on their own stems. Clusters of mignonette, La France and Meteor roses, carnations, lily of the valley, stephanotis were the flowers used.

H. H. BATTLES.

William H. Spooner.

PRESIDENT-ELECT OF THE MASS. HORT. SOCIETY.

Mr. Spooner was born at Jamaica Plain, Roxbury, Mass., (now a ward of Boston), his ancestors were of the old settlers in this section; he is now 56 years of age.

His early life was spent on his grandfather's farm, or perhaps more properly a market garden. At the age of 17 he went to New York City, where he was employed in the wholesale iron and nail business; the close confinement impaired his health so much that at the end of two years he returned to Jamaica Plain, and when his health was renewed started

in the nursery business, in which he has since continued. For the past ten years he has devoted his time to the growing of garden roses, on which he is an authority.

He has been a member of the Mass. Hort. Society since 1855, has served on many of the standing committees, was chairman of the plant and flower committee for seven years, is now a vice-president and member of the executive committee.

Mr. Spooner was a Representative in the State Legislature for 1884-5 of the ward in which he lives, was a member of the Committee on Agriculture and House Chairman of that committee in 1885.

He is a very good presiding officer and is admirably fitted by experience and temperament to preside over the deliberations of the Mass. Hort. Society. He assumes the office under most flattering circumstances, having been elected by a very large majority, and he will no doubt have the support and co-operation of every element in the society. W. J. S.

[See portrait, page 155.]

New Gladioli.

The able and practical paper by Wm. Falconer in the September number of the AMERICAN FLORIST has reminded me that we have something here in Sonoma county, California, worthy of

the attention of the lovers of this superb flower. Something we may say gotten up by long persistent efforts and skill, to exactly fill a floral niche in this magnificent climate. I refer to the new seedling gladioli (the word gladioluses seems awkward and incorrect; how would stratum and stratum sound?) grown at Santa Rosa, Sonoma county, California, by Luther Burbank.

Mr. Burbank has devoted a life's work to the growing of new things, and has had wonderful success in gaining hybrids between distinct species, of hundreds of fruits and flowers, many of them between species that ten years ago a man would have been considered "a dead gone crank" if he had intimated that such hybrids could be obtained. I know this for I "have been there myself."

He has to-day growing, with many of them in fruit, hybrids between nearly all the different species of the almond family, between nearly all the species of the blackberries and raspberries, and between the different species of each, and also the dewberries. Some of these are not only exceeding curious, but of wonderful vigor, productiveness, size and quality of fruit, I would say that his best dewberries and raspberries exceed all the older varieties at least four times in productiveness, and are all that could be asked for in size and quality of fruit. These are only examples of what he has been doing, nearly every known fruit and flower that can be made to grow "in this California climate" has been manipulated, species ripped up, broken up and "taken through a course of sprouts," until a botanist who should view the "remains" could hardly find a whole plank large enough to place his feet on.

As one example of his work, he has grown from the choicest seed, selected from every species and strain over one hundred thousand roses; from these he selected with the utmost care 25,000 and flowered them, and I saw them in bloom at three different times this season. And though I am no florist I know that there were some "good ones" among them, and that the square acre of new seedling roses all in bloom was a goodly sight.

Mr. Burbank's first success was Burbank's seedling potato, grown by him as a boy while in old Massachusetts and introduced by J. J. H. Gregory. The Burbank still "takes the cake" in many portions of the country.

We now come to his "gladiolus-es." The gladioli were early a favorite flower on this coast, but the old varieties all had two serious faults. In our richest of rich soils the stems grew too tall (here we have a gentle, sometimes increasing to a strong steady wind nearly constantly in summer, generally from one point of the compass, which was hard on these tall slender stems), and the flowers were scattered too much on the stems, also they were not large enough and not enough of them in bloom at one time. Mr. Burbank set himself to the task of remedying all these defects, with one other very prominent one here under our bright skies, namely, the flowers of the old strains did not well withstand this bright sun and drying wind. Well, he grew thousands and thousands of seedlings, hybrids of the different species, crossed and recrossed the varieties, with the result that every defect has been eliminated, and he has a new creation, embodying in perfection and every point sought for, and more. He has doubles of the largest size, perfect in color and markings. He has strains of nearly all colors of the largest of flowers, so closely

ranked that the flowers seem to be ranked in four rows on the stem, and best of all, flowers to the tips of the canes, so close together as to give the extremity of the flower stem a perfect solid cone of flowers, the petals entirely hiding the stem on all sides. The individual flowers are simply immense in size, we found numerous ones of many varieties five and one half inches from tip to tip of petals, with colors of every kind and markings known to the species. As to the size of the flowers I will say I visited many gardens in Santa Rosa and Petaluma which had in bloom I may say nearly all of the older choice varieties and the largest flower found was four and a quarter inches across the petals, the average being about two and a half inches, and then having all the care that rich soil, culture and water that could be given them, while the Burbank seedlings were growing in crowded rows on light sandy soil and no irrigation.

Mr. Falconer speaks of "grand flowers with stems five and six feet tall," Mr. Burbank bred for an ideal plant with a stiff short stem able to support itself in a windy country with stems two and a half to three feet and a half high, and he got it. Again the finer old sorts were too ephemeral, would not withstand the sun with their thin petals. Mr. Burbank bred for thick fleshy porcelain petals that would withstand bright sun and buffeting breezes and he got them.

And so it seems to be nearly all the way through. He has developed nearly everything he has tried for. He has thousands of new things, some of them truly wonders, as an example has 10,000 new varieties of potatoes selected from tens of thousands of seedlings. I will close by saying, please do not burden Mr. Burbank with inquiries. He is a very busy man, and has nothing for sale except such things as he advertises each autumn in his list of novelties. If you wish to know anything about California, or any point or thing in it write to me (inclosing stamps) and I will answer, for I am here nursing "a sore thumb" and have an abundance of leisure.

Petaluma, Cal. D. B. WIER.

Tuberous Begonias.

ED. AM. FLORIST:—The points you have recently noted in favor of Tuberous Begonias are timely and well taken. In many respects they are the most valuable bulbous plants of recent introduction. Their easy and rapid growth make them adapted for general planting and they must soon be nearly or quite on a footing with geraniums and other common summer plants as to cost.

Our friends in Europe have quite the start of us here, both in the quality and quantity grown. In a trip through England, France and Belgium the past summer I saw thousands of these begonias, some of the selected named varieties having the most beautiful flowers I have ever seen. In Belgium the collections were especially fine—the flowers enormous in size and particularly rich and brilliant in color. These were selected from thousands of seedlings gradually improved by careful hybridizing. In Europe as here the value of these plants for bedding out purposes is just beginning to be appreciated. Next season there will be immense quantities used for this purpose and I apprehend with the most satisfactory results.

Certainly anything new with the wealth of color and beauty of the tuberous begonia is most welcome, even if to

supersede only in part the stiff formal effect so frequently produced with most summer bedding plants now in use.

New York. FRED W. KELSEY.



Chrysanthemums Out of Doors.

In the Southern States, also in mild localities along the coast excellent chrysanthemums can be grown and bloomed out of doors, and that too without any protection whatever in the form of glass, muslin or other roofing while they are in flower. At the same time I am well aware that perfection can only be obtained by using some protecting material in fall, or growing the plants indoors.

Our place is right on the edge of Long Island Sound, hence the weather in fall is very moderate, and we usually have a fine display of chrysanthemums outside till the middle of November. This year so far, November 5, we have had only one very slight frost.

We now have over 200 varieties in bloom out of doors and just where they had been grown all summer, and right here a few general observations may be pertinent: Chrysanthemums outside love sunshine and open their blossoms much better for it, they love plenty room, and pay for it in sturdy bodies and good foliage; good soil for good growth, and moisture while growing and swelling their buds; they love shelter from winds and demand the support of stout stakes, but one stake to a plant is enough, and from the first they should be securely but not tightly tied up to the stakes. And especially when they begin to set their buds and open their blossoms is staking necessary, for about this time we often have violent storms. And it is visible throughout the whole range of plants, and year after year it is the same, namely, that strong plants in fall are always the result of strong young plants in spring, and the miserable, hide-bound things are mostly the result of weak, slender, hide-bound stock in spring.

But all chrysanthemums don't do well out of doors; some may grow well one year and fail absolutely the next, and some that grow well don't open their flowers well or enough of them. The pompons and Japanese sorts seem to do better outside than do the Chinese varieties, particularly the incurved section, many of which succumb to mildew. And I haven't found many anemone-flowered sorts to open as perfectly out of doors as indoors. Again, we grow what is in most demand, and I can assure you the largest flowers are the most appreciated, and for this reason we have to ignore many pretty pompons and all except perfect blossoms of the Chinese; the big, full Japanese are the favorites. This gives an impetus to disbudding. Six weeks ago it seemed as if we were stripping off too many buds, to-day we wish we had stripped off more, for there is more credit in one big perfect blossom than in half a dozen middling ones.

All things considered, the following are the best varieties now in bloom out of doors with me—every one of them is

healthy and vigorous and carrying a full crop of perfect flowers, or, as in the case of Cullingfordii, perfect buds: Elaine, Domination, Nevada, Moonlight, Jessica, Snowstorm, Lady St. Clair, Elsie, Ceres, M. Boyer, Mrs. E. Gilmore, Ile Japonaise, Gloriosum, Golden Dragon, Peter the Great, Golden Prince, Gloria Mundi, Baron Beust, Bronze Shield, Source d'Or, Red Dragon, Olympia, Lakme, Julie Lagravere, Cullingfordii, Hon. J. Welsh, and Mrs. Vannaman.

In a favorable locality like this there is a great deal of pleasure in raising chrysanthemums from seed, for by sowing in February or March I can bloom most every plant out of doors next fall, and only select for the following year's trial the very choicest of them. First year seedlings, as a rule, have a capital constitution and bloom prodigiously, and some of them are very handsome, but of course only a small percentage will be worth keeping over. Some of my very best chrysanthemums out of doors are my own seedlings, which, although excellent for this purpose, are not good enough to name and disseminate.

Glenn Cove, N. Y. WM. FALCONER.

Boston Notes.

The November meeting of the Gardeners' and Florists' Club was largely attended and the subject selected for discussion, "Chrysanthemums," brought out a most interesting debate.

The discussion was opened by Mr. E. A. Wood and was participated in by Wm. Edgar, W. H. Elliott, W. H. Knapp, Chas. Saunders and other local chrysanthemum growers.

Mr. Wood read a list of varieties which he had found best adapted for the various purposes of early, medium and late blooming for cut flowers and for pot plants. Speaking of plants for sale he said his experience was that they are difficult to dispose of after November 15, and advised against growing late kinds for this purpose. In growing plants for exhibition purposes he had found it best to grow exclusively in pots from the time they left the cutting bench, topping them first when three or four inches high, and repeating the operation when shoots were three inches long, up to July 15 when the last pinching should be done and the plants should be then 18 inches high and level across the top. From open ground he pots in latter part of August. He prefers a dry year when there is no wind and gets best results when the soil is dry and easily shaken out from the roots.

When growing cut blooms for exhibition he takes cuttings all the way from January 1 till March 15, but finds that the best blooms are invariably obtained from the earlier cuttings, and from those plants that have been kept in pots all summer without any shifting after July 1. Blooms from such plants have more substance and keep better. He has better success with "crown buds" than with "terminal buds." The terminal bud is often larger, but is more apt to be imperfect and has less body.

Wm. Edgar who has made quite a success in raising early blooms for market said that the best varieties for this purpose are Mme. La Croix, white, and Geo. Gordon, red. He grows his plants outside in boxes, bringing them into the house about September 15. He finds the demand for extra large blooms increasing every year.

A discussion was indulged in regarding the "chintz bug," which has been a source of much loss and annoyance to



"MOUNTAIN FLEECE" (POLYGONUM AMPLEXICAULE VAR. OXYPHYLLUM.)

chrysanthemum growers. Chas. Saunders, gardener to Prof. Sargent, stated that he had lost a great many plants from the ravages of this insect, which seems to be proof against all preventives or remedies. According to Mr. Saunders the bug is found also on gladioluses. He pierces the young flower buds on the chrysanthemum destroying them completely, or causing them to come deformed and onesided. He is brown and is exceedingly lively, being "very easy to see, but it is the very devil to touch him." Mr. Wood has named him the "Hide and go seek bug." He has found him easy to catch, however, when the plants are wet, as in a drenching shower. Mr. Findlayson says the bug does not trouble him after he has got the plants into the houses. This view was endorsed by young Mr. Dawson, who said that he had got some further relief by fumigating.

Mr. W. H. Elliott gave an account of his method of growing for the market, advocating generous applications of liquid manure and claimed that plants propagated late were the best, if grown rapidly, and would hold both flowers and foliage better. He regards careful following up the pinching process through the summer as one of the most essential points in chrysanthemum culture. Another most important point in his opinion is to find customers for your plants after you have had the pleasure of growing them. Mr. Knapp keeps his plants inside all summer, putting them right into the beds from 3-inch pots. His plan in growing blooms for the market is never to stop back the shoots, allowing them to grow any height they please, and then subduing so as to leave from four

to six buds on each. With this plan he has been most successful the past season.

Mr. Wood in answer to questions said he did not believe Mrs. Alpheus Hardy could be grown well out of doors, and that it is now impossible to distinguish between Japanese and Chinese types, owing to the crossing and recrossing which has been going on. W. J. S.

What is a Sport?

The chrysanthemum, of all our garden flowers, seems to be the one most disposed to "sport." The occurrence is always interesting, and always excites surprise. In reality, however, the change (we are now speaking of the chrysanthemum only) is not very great. In most, but not in all cases, it depends upon the non-development of a particular tint of color in a certain bud, or in the assumption in that particular bud of a tint of color different from that of the original plant.

We have examined very many chrysanthemum "sports," and have only occasionally seen any greater difference than that mentioned. But the sudden change, slight though it be, is mysterious. We know something of how it happens, but the reason why eludes us. Why are particular varieties more particularly subject to it than others? Why does the same sport occur on different plants in various places, often in different countries simultaneously? This may be due to the circumstances that all the plants of a particular variety originated from a single bud, of whose qualities they partake, and from which they have all in turn been propagated.

The chrysanthemum has been crossed and recrossed and crossed again from time immemorial by the Chinese and the Japanese, so that the existing varieties are of very mixed blood indeed. That mixed parentage has much to do with the matter, is shown not only by the circumstance that where the breed is much mixed sporting is common, but also by the converse fact that where the breed is comparatively unmixed, as in a China aster or a Chinese primrose, sporting, in the sense of bud variation (as distinct from seed variation), is very uncommon. One form of sporting may, therefore, be reasonably attributed to a dissociation or unmixing of heretofore combined elements. Assuming that this is so, we are still in the dark as to the cause of the unmixing, and equally so as to the reason for its sudden manifestation. We may compare the occurrence to a change in the position of the kaleidoscope. Turn it ever so little and the particles of glass arrange themselves in a different pattern; but what effects the turn is in the case of the sports, at present quite enigmatical. Even Mr. W. Paul in a memorable case asked "What is a sport?" he himself being, probably, about the best qualified person to give an answer to the question. Let the incident serve as an example of modesty.—*Gardeners' Chronicle*.

Mountain Fleece.

Polygonum amplexicaule var. *oxyphyllum* is its botanical name. It is a hardy herbaceous perennial and indigenous to the Himalayan Mountains, whence it was first introduced to Europe eleven years ago, and thence to America eight years ago. It is figured and described in the Botanical Magazine (Pl. 6503). Here we find it was raised from seed sent to Kew from the extreme northwest Himalaya by Dr. Aitchison, and flowered for the first time in Europe in September and October 1879. Dr. Asa Gray brought it over from Kew to America in 1881. I have grown it continuously since it was first introduced into this country, and the more I know of it the better I like it; in fact, I have not a moment's hesitation in declaring it to be the grandest hardy herbaceous perennial that we have got in bloom in October.

It is a plant of vigorous, bushy, branchy growth $2\frac{1}{2}$ to $3\frac{1}{2}$ feet high, and from towards the end of September till the end of October it bears the utmost profusion of fleecy, fragrant white flowers.

The accompanying illustration is from a photograph of a little spray taken the second week of October.

Although the plant is perfectly hardy here a sharp frost will injure its flowers, hence I would not recommend it for blooming out of doors where sharp September or early October frosts are likely to occur unless some protection such as we provide for chrysanthemums be given it, but if this is done any one anywhere can enjoy its loveliness. It is now the 30th of October and this Mountain Fleece although a good deal past its best, is still in beautiful bloom with us in the open field bordering on the south side of the orchard. I also grew and flowered a lot of it in pots this year, and without any forcing had it in full bloom the middle of September.

Of what use is it for cut flowers? For immediate use it is lovely where fleecy flowers are desirable, but I do not recommend it to keep over for two or three days, as many of the little blossoms will drop and the larger leaves wilt, I get over this latter difficulty, however, by at first

plucking off all the large leaves. And it comes in when outdoor flowers are getting scarce and before the chrysanthemums are in bloom.

It likes good ground and plenty of water particularly when grown in pots. The only insect enemy that seems to bother it is the rosebug in June, but this is enough for it almost defoliates it.

It propagates very easily from cuttings of the young wood or stems or division of the root stocks. Seeds have never been produced by any of our plants.

Glen Cove, N. Y. WM. FALCONER.



Orchids for Cut Flowers.

In Messrs. Siebrecht & Wadley's new catalogue—which deserves praise for its general merit—two orchids are classified as East Indian when they should by no means be placed in that class. The reference is to the two cymbidiums—*eburneum* and *Lowianum*. Williams, in his book on orchids, also recommends them to be grown in the East Indian house.

Though these orchids are collected in tropical latitudes, we are not told anything of the altitudes at which they are found or the conditions that produce fine plants in their native habitats. Probably but few collectors could give us satisfactory information on this subject, for they do not usually stay long enough in one locality to study all the conditions essential to vigorous growth and a free blooming quality. Even, however, if this was attainable, experience is constantly teaching us that to ensure the best results in our cultivation of many plants under glass we must vary somewhat from natural conditions. As Mr. May, in the *FLORIST* of September 15, in his remarks upon the growing of roses aptly puts it: "The conditions in the greenhouse and out in the open ground are different." So we must always remember that Nature's ways can not be implicitly followed, but must frequently be modified because of differing environment.

The attention of florists needing easily grown free flowering serviceable orchids is directed to these cymbidiums. They are so easily managed—when properly understood—and their flowers are always useful. Probably every florist who is fairly successful in his methods of cultivation can grow *Cypripedium* insigne—even though his knowledge of orchids is very limited. Go where we will we are sure to find some plants of this old favorite. And no one appears to experience any difficulty in flowering it. Why should it be so? For all know that it requires no coddling to ensure a crop of flowers. Just as simple in their requirements are these cymbidiums. They need no East Indian stove with its tropical temperature and excessive moisture. They will grow and flower with other plants in any ordinary greenhouse temperature. The soil needed is about the same as we would give *Cypripedium* insigne; a turfy loam—some broken pots or charcoal to keep it porous—and a little well rotted manure. Plenty of water, and not heavy shade, when growing; somewhat less quantity of water and plenty of light when the cool days of

autumn arrive. The stock of plants is increased in the same way as the *Cypripedium* spoken of, viz, by division.

Another orchid equally as serviceable as these—quite as easily grown—and always free in its flowering qualities, is *Zygopetalum Mackayi*. Strange to say that this, one of the easiest of all orchids to grow and flower, is seldom seen in good condition. The writer has no more trouble in growing and flowering this plant than a geranium. Mr. Keller, of Bay Ridge, also succeeds extremely well with it and has, or did have, a fine stock.

The flowers are sweet scented and are advantageous for all purposes for which an orchid can be used. It requires just about the same treatment as the cymbidiums, though a little more heat will not hurt it.

Florists who wish to grow a few orchids for the sale of the flowers can not go wrong in trying these three mentioned. Let no ignorance of orchid cultivation deter any one from this purpose. For novices are apt to be more successful with these plants than many who have been growing orchids all their lives. For the latter find it so hard to free themselves from the idea that these plants need special and particular care.

There are but few orchids that can be recommended as profitable for growing for cut flowers. It is very easy to be led away by highly colored descriptions, or even by the appearance of many beautiful orchid flowers into purchasing plants that never can prove remunerative. All orchids that are difficult to grow, or to flower, or that need high temperatures, are unprofitable to the florist who needs them for to make use of the flowers. But it is a pleasure to recommend to all these here mentioned, as it is certain that success is easily attained, and that the flowers are desirable in every way.

It is to be hoped that those authorities who class these orchids with the East Indian, will revise their classification and not thereby mislead the ignorant.

A. E. WHITTLE.

Cheap Ventilating Apparatus.

Whenever the first investment can be afforded the patent ventilating apparatus advertised by several manufacturers will undoubtedly prove the best in the end, but where this can not be afforded a very fair substitute may be put in at slight expense on the plan shown in the accompanying illustration.

The sketch shows the apparatus in a greenhouse belonging to Mr. J. T. Anthony, a Chicago florist, who has combined all the best points from similar ones in use by other florists in and around the city.

The ventilator rods are stiff, one end being bent over through which they are screwed to the sash; the other end is provided with an eye. In putting up, the wire clothesline cable is first carried the length of the house, run through the last pulley and attached to the eye in the last rod, which is lifted by the main cable direct. The cable is then attached to the double blocks at the other end of the house (see sketch) and drawn taut. All the remaining sash are then attached to the main cable by shorter pieces of the same in the manner shown in the sketch, the splice with the main cable being made first, then carried through the pulley screwed to the roof and last tied through the eye of the ventilator rod. Having the slack end of the piece to tie with the length of each one can be adjusted to a nicety, and if any do not afterward open evenly the piece can be easily

shortened or lengthened to suit. In the double blocks through which the lifting power is applied stout braided window cord is used, the free end of which is secured with a few turns over the bitts below when it is desired to hold the sash open. The first block should be secured so that it always stands in an upright position as otherwise the cord will bind on the block when power is applied.

Mr. Anthony states that the cost of fitting a house of ten ventilators with this apparatus is about \$4.50 and that two men can put it up in about an hour's time. The ventilator rods cost him 25 cents each, made to order by a blacksmith, cable 60 cents for a house, 10 awning pulleys 3 cents each, and the double iron blocks 70 cents. This makes a total of \$4.10, leaving the balance to cover cost of cord and screws.

Proper ventilation is a very important matter which is frequently slighted where each sash has to be opened separately, owing to the amount of labor involved, and we have always believed that even expensive ventilating machinery paid for itself in a short time through securing for the plants better ventilation on account of the ease with which it was given. And while many may feel that they can not spare the money necessary to put in the regular apparatus they will find the substitute described so cheap and so effective that they can not possibly afford to be without it.

Nomenclature.

It is now nearly eighteen months since the "Nomenclature Committee" was appointed by President Hill at the New York convention. This committee was called into being in answer to a spontaneous enthusiasm aroused by Mr. Halliday's essay on "Nomenclature."

This essay appeared to touch a spring which aroused all florists' minds alike, for some of the abuses there spoken of had been the general experience. There is probably not one florist who at some time or other has not been deceived as to the character of the plant or plants he has purchased. Therefore, when Mr. Halliday denounced as fraudulent the practice of selling one variety under two or more different names—obviously with the intention to deceive—all echoed the denunciation, and believed that by the appointment of a committee much effective work could be done.

After these months it is pertinent to inquire as to the good accomplished by the committee. Whether there is a field in which such a body can work—if so, what particular work is calculated to be of the greatest advantage? Any remarks by the writer in this direction will not, it is hoped, be considered as critical; for, as he served with this committee, any comment applies equally to one as to the other. The purpose is to speak from personal consideration, hoping that others will do the same, thus enabling progress to be made. No advancement is ever effected without many failures, and this work of revision of nomenclature is not likely to be any exception to the rule; and it is always one sign of progress when the eyes are not closed to failure, but the weakness seen and amended.

Mr. Peter Henderson declared in the writer's hearing at Buffalo that such a committee could not possibly effect any appreciable result. To ascertain whether this is so is within our province to determine. Effort that is useless is worse than wasted. There is so much to be done that concentration upon work that

is likely to be effective should be the only aim.

That there is need for an improvement in our nomenclature all must surely allow, and no better illustration could be had of this need than the general expression of the fact at the convention in New York. Very often there is a want felt and yet a very superficial view is taken of this want. Though the expression of approval with the sentiment of Mr. Halliday's essay was so unanimous and the expectation so universal that a committee would be able to work at the root of the evil; yet the measure recommended by the essayist in the appointment of this committee, and endorsed by public opinion does not appear likely to produce any marked result in the attempt to correct our nomenclature. We could all acknowledge the want when our attention was directed to it; but we did not, and perhaps do not yet, give the subject of this want sufficient thought in order to apply the right remedy. In all human affairs no great want is supplied without profound consideration, and in this our need we appear to be as far as ever from making any change calculated to be of general benefit.

To the question then whether any good has been accomplished by this committee one of the members must acknowledge that he can see but little. In the first place members of this committee are not able to detect the false nomenclature from the true, other than by actual experiment or from past business experience. To make a thorough search for all falsely named plants would entail much labor, time and expense. Where is the man that can afford these?

In the second place there is much of this false nomenclature as we are all so ready to assume? Are there so many plants that are renamed in order to deceive purchasers, solely for the pecuniary benefit of the individual so doing? Sometimes this may occur through ignorance, if so, are there many such cases to be met with? A limited observation can not assert that there are. The few authenticated instances are generally known, and florists do not need any special committee to call their attention to the facts.

Though it may be deduced from these few remarks that this special committee has not accomplished much, yet it would be an error to assume that there is no field for labor, no work for some properly constituted authority to perform. We florists require some standard that will settle decisively for us, all these vexed questions of nomenclature. And there is more of interest to us involved in the subject than appears on the surface. We need not only to correct names, but we also require aid in estimating the comparative value of the numberless new varieties of florists' flowers that flood the country. There should be some standard of value to which all might look up.

It is very easy to raise new varieties, but it is extremely hard to raise improved varieties. Is it absolutely necessary that each year should find us burdened with new plants decidedly inferior to those already in commerce. Let the growers who deal in these varieties protest earnestly that this must be—that there is no remedy—that the man who imports is not bound to provide with his capital an experience for others, yet in the opinion of many this is not to the advantage of the trade in general—that there may be a way to enlighten the ignorant without injuring the individual.

In the literary world there is not much

chance of a book finding many purchasers if it is without merit in its particular class. No sooner is a book published than it receives criticism, favorable or otherwise, from competent men. They influence public opinion, and according to their verdict usually is the sale of the book. Florists, however, are at the dealer's mercy. They have nothing to go by except his description, which is generally made to fit the occasion. As a rule no man will trust another in a horse trade, if he does he is almost sure to be sold as well as the horse; and it would seem as if the same principle, or want of principle, applies to most of our transactions with one another in regard to new plants. The ethics of our business demand broader views.

If there is really no remedy we must go on in the old way. Either wait until



CHEAP VENTILATING APPARATUS.

the plant is proven a success by the experience of others, or buy according to the raisers' or growers' description. Even when we wait uncertainty as to the merits of any particular variety is generally experienced, and it is only by actual experiment that a fair test of its value can be determined. The suggestion is that there is work here for the S. A. F. Many committees are appointed each year for various purposes, all expected to serve for love—suppose we change this and appoint a committee to serve for adequate recompense.

The many valuable suggestions and plans that have been offered for the establishment of an experimental garden all point to a combination of such a garden with a school of horticulture. This without outside aid is an impossibility to the society. Even an experimental garden alone could not be conducted without considerable additions to our finances. But why could not a portion of the experimental plan—the ascertaining of the comparative merits of new varieties—be assigned to competent men of our society? Let one man obtain and grow all the new roses of the year and report to the society. To another be given the carnations, another the chrysanthemums, etc. Why should this be considered beyond our means? Why could not such a plan be made to prove of incalculable benefit to us all? By these means if duplicates are offered we should all be aware of them before any person could be victimized; and not only so, but if all new plants were to receive the endorsement of the society, founded upon the recommendation of competent, qualified authority, great care would be exercised by all to offer only that which is really meritorious.

Would society suffer? Certainly not. Trade in new plants would increase, and the holder of any good thing would

receive double recompense. Naturally this would be so. People are afraid to buy new plants. Not because of the price, but because to do so is often completely to throw money away. Descriptions in catalogues are quite worthless. They are like an editor's opinion of his political candidate. Colored by the desire for personal gain.

The class of flowers here considered is more particularly that commonly designated as florists' flowers. The class specially instanced by Mr. Halliday—that to which so many commercial florists devote their attention. There is, however, work a'so to be done in "scientific nomenclature." The writer here wishes for information. Who is the competent authority in this country to determine the genus to which any particular plants belong? The answer will probably be—"The botanists." But is not this very vague? Should we not have some known authority to which we could all appeal? Who made Prof. Reichenbach the authority? If I find a plant unknown to commerce, to whom shall I send it to determine its species and genus, and whose decision will be final as to its ultimate place in our catalogues? Surely if we have a national society an authority established by this society should be the standard to which we all could appeal. Who is responsible for the very inappropriate names of some of the genera? For instance, what authority gave the beautiful (?) name *scabiosa*—from the Latin word meaning the itch? Suppose a number of us would like to change this name, to whom shall we apply? Can not the society help us in this matter of "scientific nomenclature?" Appoint its authority and sustain this authority.

To summarize. Let a committee upon the nomenclature and merits of new and other plants be established by the authority of the society; subdivide the work among the members of this committee; let them be paid for their labor, for it is certain that no work will be thoroughly done unless the worker receives a suitable return for his labor. If the society calls upon its members for an outlay of time and money it should be ready to return a recompense. There need be no great difficulty in obtaining sufficient funds for this and other purposes. Many objections were raised to the increase of the annual dues. Members of the Executive Committee supposed that some would be frightened away from the society thereby, but experience proves the contrary, and there need be no doubt that so long as the society continues to perform helpful work all necessary funds will be forthcoming.

ALFRED E. WHITTLE.

CANNA "VIRGINIA DARE" is the name of a new variety raised by M. R. Catlin, Richmond, Va., and of which Mr. C. has sent me flowers. It is the finest thing in the way of a canna that I have ever seen. The spike is stiff and closely furnished with splendid glowing orange scarlet flowers slightly edged with yellow, and yellow in the throat. The petals are over an inch wide and the individual open flowers nearly four inches across. The habit is dwarf and the foliage deep green. Mr. C. gives me its history: It is a seedling raised by him from seed sown in February, '88, it bloomed the June following. As soon as its merits were observed his whole energy was exercised in increasing the stock, and in September, '89 he had a hundred plants. All through last winter it bloomed beautifully in pots in the

greenhouse, and it bears better flowers indoors than outside, it is for its value as a winter blooming plant that he most appreciates it.



No class of plants require more careful cultivation than roses that are grown under glass. All successful growers of roses can corroborate this statement from their own experience; for no matter how able the grower is, he can never be certain that all his roses will be of an equal degree of excellence—and they never are. In one house the *Perles*, etc., may look magnificent; in another, the same variety, grown, as far as he knows, under exactly the same treatment, may be of decidedly inferior quality—why this is so is not always apparent. What other class is so susceptible to changing conditions as this? We succeed fairly well one year, and the next in spite of all our care and forethought some untoward condition, for which we are not prepared, will arise and our roses suffer in consequence.

This fall the atmospheric and other conditions seem more perplexing than ever. So much wet weather; so little sunlight; such an excessively humid atmosphere; all have had their effect in compelling continual vigilance. The conviction is intensified that it is impossible to teach a man to be a rose grower. Not a day but what some caution to workmen is needed. Spider, aphids, mildew to be watched for and checked at their first appearance. At some periods frequent waterings; at others days must pass without any being given. Temperature at night sometimes to be varied according to the weather. Ventilation needing hourly watchfulness. Every care must be exercised if a high grade of roses is to be the production. Then, after all, black spot or some other insidious disease which we know not how to control, will ruin all our calculations.

Some men, who do not know, think it an easy matter to grow roses. Orchid growing appears to them the hard nut to crack. But a set of rules can be applied to orchid growing with much more safety than to rose growing. The requirements of orchids are not so complex, and their welfare is not so quickly influenced by apparently trifling changes.

No essential of rose growing needs greater care than the watering. It, more than anything else, makes or mars the rose. Even here no rule can be given, for each variety of rose requires its own treatment. Soil, temperature, the water required, is governed entirely by the individuality of each rose we grow. Water a *Papa Gontier* as profusely as some others and good-bye to any success with it for some time. Much dissatisfaction has been expressed with this rose for shedding its leaves. This weakness can always be controlled by the grower. When this is noticed, at once cease watering. Do not water again until the soil becomes dust dry, and the roses show slight signs of wilting; then water so that the bed becomes thoroughly soaked. Always, however, continue to be careful

that no water is given unless the bed is dry; then water freely.

Niphetos is another rose that is easily affected by an over supply of water. But this variety shows the injury in the quality of the flowers. The petals become twisted, and more or less green appears in them.

No rose is more easily affected by the least change in the atmosphere, temperature or watering, than the variety *Mme. de Watteville*. Last year with us it was a complete failure. This year somewhat of a success. A most profuse bloomer, but needing some disbudbing to ensure the largest flowers. Can generally be cut with long stems. When well done more desirable than *Mme. Cusin*. But let no mildew obtain a lodgement on the leaves. Spider and aphids are its deadly enemies. A dry condition of the soil is to be avoided. A rose occupying its own place—commendable for its beautiful tints—but not a rose that can ever be grown well in a hap-hazard fashion.

ALFRED E. WHITTELE.

Soils.

This being the time of year when one of the most important materials for growing plants must be secured, a few remarks on the subject may not come amiss.

I find that many florists in the west labor to great disadvantage in regard to soil, especially if they happen to be in an alkali belt. Almost the first question you hear from them is: "Did you ever see plants get burned on the edge of leaves and then die?"

I have had some experience in that direction myself. First when in Missouri I struck a soil in which I potted a lot of verbenas and other soft wooded plants and they stood in the pots over two months and never made a leaf. Also had put same kind of soil on a bench in greenhouse, but the plants would not grow. I examined the soil and found there was not a particle of lime in it, so I made a strong lime water and applied it to some of the plants, both in pots and on the bench. All that were thus treated started to grow at once, but those that did not get lime never did start. I experimented with the same results frequently.

The year following I was in a part of Kansas noted for gypsum and alkali, in fact in some places the alkali was so strong that plants would not grow in it. I also found that where this was the case there was no decomposition of vegetable matter. In places where stable manure had been used three years before the straw and leaves were still intact. Now where there never has been decomposition of vegetable matter there is no ammonia, and as that is one of the most essential of all plant foods, it must be supplied. The way I did this was to neutralize the alkali by applying an acid to the soil. Have used refuse hops, apples—after coming from cider mills, diluted vinegar, or any fruit containing acid, all with the same results.

In some parts of Colorado the alkali is so strong that fence posts of pine only three inches in diameter that were put in ten years ago are still solid, yet some were in water most of the time. I also find that scarcely anything grows there. Sometimes the soil is full of alkali and the persons using it do not know it. Roses when planted in soil of this kind seem to start off all right for a time, but soon a few of them get light colored leaves and in a few days the edges turn down and look as if they had been scorched or burned, then it is only a

matter of time until the plant dies. It always takes the weakest plants first and some varieties of roses are more subject to it than others; *Perle des Jardins* is usually the first to succumb, and in some parts of the west the florists call it "Perle rust," but if the soil were analyzed it would be found that alkali is the cause of the rust.

It not only affects plants under glass, but also vegetables grown outside. One gardener near Denver lost his crop of celery from the same cause. The following year he applied acid to the soil and raised a good crop on the same ground that failed before. One cause for so much alkali here is from the water used for irrigating. It comes from the mountains and carries with it the fine particles of rock and sand from the quartz mills, which are located along nearly all mountain streams. The sediment contains alkali in great quantities, in some places the sides of the ditches are all white and look as if they had been whitewashed. Where much water is used the soil in the gardens also gets a coat of white, frequently one sees a patch in the center of a field where no sprig of vegetation will grow, but apply acid in any form and see how quickly a luxuriant crop of vegetation will come.

Denver, Colo.

Useful Summer Blooming Flowers.

BY A. E. WHITTELE, ALBANY, N. Y.

[Read before the Society of American Florists at Buffalo, August 22, 1899.]

It is not the object of the writer of this paper to attempt to specify and describe all the flowers that can be made available for useful work during the summer. Many plants that bear handsome flowers during this period are valuable only for decorative purposes in the flower garden. His design is rather to select examples, and call the attention of those florists who grow for the cut flower market to those plants whose blooms are always of value as cut flowers; and this enumeration will be principally of flowers that can be grown outside during the summer months. Seldom do we find a florist who is systematic in the growing of summer plants, in order to have a constant supply of useful flowers. His efforts in this direction may be characterized as rather aimless, for though he may have plenty of flowers outside, they are often of a kind that are useless for what is required; and still more frequently they can be found in his gardens in quantities, only at irregular intervals. True, the most serviceable of these flowers at this season are of little value in a financial point of view; but florists require flowers in summer as well as in winter, and it is to their interest to possess those that are the most advantageous to them.

As a rule there is a dearth of useful flowers in early summer. It is too soon to look for flowers outside from spring-sown seeds, and spring-planted plants, and too late to gather very much from the greenhouses. Roses at this period often command as high prices as during some of the winter months, as florists now commence to prepare for the replanting of their rose beds and the crop of these flowers is diminished thereby and the supply decreases through the summer months. Carnations also at this season are not so plentiful as earlier in the year. It is therefore necessary to fill up the gap in the best way possible by preparing ahead for a supply of useful flowers.

Catalogues teem with the names of plants recommended for summer blooming and that are really desirable for many

purposes; but of this number only comparatively few are of advantage to the florist. Summer flowers, equally with those of winter, to be used in florist's work, must have long stems and good keeping qualities. A list has therefore been carefully prepared of the flowers which bloom in the summer, and which can be recommended for the purpose under discussion, rigidly excluding those for which a florist has no place. The title, therefore, of this essay, as printed is somewhat of a misnomer.

The design in preparing this list is to specify the plants that are considered desirable to be grown for each month in summer, commencing with May and ending with October. Before proceeding with this list it is but right to say that able assistance has been given to the writer by Mr. Falconer, of Glen Cove, L. I. A few simple cultural directions will be given where it is considered desirable.

PLANTS TO BLOOM IN MAY.

Greenhouse: gloxinias, lapagerias, stephanotis, roses, carnations, heliotrope. Gloxinias to be had in flower for this month should be potted early, not later than March, and kept warm.

Stephanotis may be had in flower in April if placed in a temperature not less than 60 degrees through the winter.

Lapagerias will continue blooming until fall, the white one being very desirable. Stephanotis will last through June and July.

Frames: pansies, myosotis, anemones, mignonette, candytuft, calendulas, stocks. Pansies may be had in bloom in April by sowing the seed early in the preceding fall, not later than the end of August. There can be no flower more useful to the florist at this time of the year than mignonette and candytuft. These may be had either by sowing seed in the fall, providing the protection of a cold frame through the winter, or by sowing in moderate hot bed in early spring. Seed of the intermediate stock should be sown in early fall, ten-week stock in hotbed or greenhouse in March.

Shrubs: Magnolias—stellata, conspicua, Soulangiana; lilacs, Viburnum opulus, Deutzia gracilis, Spiraea Van Houttei—cautoniensis; tree peonies.

Herbaceous Plants: Trillium grandiflorum, early peonies, lily of the valley, Hesperis matronalis, Iberis sempervirens, Dielytra spectabilis.

Attention is directed to the perennial candytuft. It is excellent for all purposes as cut flowers.

PLANTS TO BLOOM IN JUNE.

Greenhouse: Allamanda Schottii, lapageria, stephanotis.

Shrubs: Chionanthus Virginica, Philadelphus grandiflorus, Deutzia crenata fl. pl., roses.

Hardy and herbaceous perennials: Paeonies, German irises, Coreopsis lanceolata, double pyrethrus, Lilium tenuifolium—Hansonii, candidum and longiflorum; Spiraea palmata, Cypripedium spectabile, Hemerocallis flava, Delphiniums.

Coreopsis lanceolata is very showy and quite desirable. Seed should be sown in July and plants will bloom in the following spring. Lilium candidum and longiflorum may be had in flower both through May and June by retarding bulbs potted in late fall.

Annuals: Coreopsis coronata, mignonette, candytuft, alyssum, sweet peas, Helianthus cucumerifolius, asters, stocks, dianthus in variety, double feverfew, Gaillardia picta, Lorenziana and hybrids, scabiosa.

Among the most satisfactory annuals for summer work must be named the gaillardias. They are extremely showy and generally sell readily. To have them in flower in June, seed should be sown in February. Mr. Denys Zirngiebel, of Needham, Mass., in answer to a question, kindly gives some information concerning the early blooming of asters. The seed is sown in December, plants when up are potted into 2-inch and then 3-inch pots, and then planted outside in April, where, if they are properly hardened, they will endure some degrees of frost. By this method Mr. Zirngiebel places asters in the market by the middle of June. Of the various forms of asters, not one is superior for florist's purposes to the Victoria strain. The flowers are very handsome, of fine form, and produced in great abundance. A variety called Burpee's Dwarf Queen, seen growing at Glen Cove, L. I., can also be highly recommended.

There is no reason why asters may not be had in flower from June until October. All that is needed is successive sowings of seed from December until the first or second week in June. Of course the two later sowings may be drilled outside. A very fine bed of asters is now coming into bloom (August 10) from seed drilled outside the first week in May. Another sowing in June will enable flowers to be cut until frost. It is perhaps superfluous to mention to practical men that strict attention must be given to the proper thinning out of seedlings that grow from outside drilled seed. The writer has no experience in experimenting with asters as an inside crop. That this is feasible is very probable. Perhaps some gentleman now present may be able to speak upon this point. Stress is laid upon the value of asters as cut flowers. They are essential to every florist, and the longer the blooming season can be prolonged the better for florists in general.

Candytuft is another annual that can be had at any time in spring, summer and fall. All that is necessary is successive sowings. The dates of these sowings should be decided by each individual for himself. Localities differ, and what may be the right time for one may very likely be the wrong time for another. The aim is to direct attention to the possibilities of a continuous supply of the flowers of desirable annuals. Mr. Zirngiebel states that when candytuft is transplanted the plants flower sooner than when the seed is drilled and the seedlings, after thinning out, allowed to remain.

PLANTS TO BLOOM IN JULY.

Hollyhocks, gladioluses, Hyacinthus candicans, Montbretia crocosmæflora, Milla biflora.

Gladiolus, as is well known, may be had in flower much earlier in the season. The montbretia and the milla are both desirable.

Old clumps of hollyhocks flower earlier than plants from fall sown seed. A succession of these flowers may be had by having some old clumps and planting every year, plants raised from seed sown in October.

Perennials: Lilium candidum, longiflorum, auratum, superbum; Iris Kæmpferi, Phlox decussata—varieties, Spiraea Ulmaria, fl. pl., Asclepias tuberosa, Helianthus multiflorus, fl. pl., Euphorbia corollata; Yucca filamentosa, Lathyrus latifolius.

PLANTS TO BLOOM IN AUGUST.

Shrubs: Hydrangea paniculata grandiflora, Tamarix chinensis.

Miscellaneous: Cannas, dahlias, glad-

ioluses, montbretias, feverfew double white, Solanum jasminoides—the latter in greenhouse.

Some florists have made quite a success in growing the white dwarf dahlia—camelliaflora—as a fall crop in the greenhouses. It is very prolific, and most useful for our work. If managed so as to have the plants in full flower during the month of October, they become quite valuable, for frosts during this month kill all tender outside flowers.

Perennials: Liliums in variety, Phlox paniculata varieties, Euphorbia corollata, Anemone japonica, Funkia grandiflora.

Annuals: Second crop of asters, candytuft, etc.

PLANTS TO BLOOM IN SEPTEMBER.

Miscellaneous: Tuberoses, feverfew, second crop; dahlias, carnations, cannas, bouvardias in greenhouse.

It is always well to grow a sufficient number of carnations, in order that a few may be allowed to bloom early. These need not be planted inside for winter work, but kept solely for the fall flowers.

Hardy perennials: Helianthus multiflorus, fl. pl., Anemone japonica, Pyrethrum uliginosum, Lilium speciosum, Eupatorium ageratoides, Eulalia japonica. Mr. Falconer states that the eupatorium, though wild, is worthy of notice and cultivation.

PLANTS TO BLOOM IN OCTOBER.

Annuals: Asters, alyssum, Calendula Meteor and P. of Orange, verbenas, seudouble geranium, candytuft.

These flowers will bear a few degrees of frost.

Feverfew, double white, pansies from seed sown in July.

Perennials: Anemone japonica, Pyrethrum uliginosum, early chrysanthemums, Helianthus Maximiliani, Eulalia japonica.

Flowers in Parks.

At the Buffalo convention Mr. McMillan, superintendent of the Buffalo parks, read a rather comical and ironical essay on the planting of flowers in parks, especially the planting of Mosaic beds, ribbon lines and the planting of flowers in the shapes of animals, etc.

There is no doubt that the planting in geometrical style may be out of place in some situations but in others highly desirable. We do not think florists should encourage planting ludicrous designs that are likely to create disgust in the people's minds against flowers. But we think as florists the planting of flowers judiciously in parks should secure every encouragement, for the park is a place where people are taught to love nature, and what is more beautiful and desirable in nature than flowers?

We think and have heard prominent florists say that they thought the Buffalo parks would be much improved if more flowers were introduced. While the Buffalo parks may do very well from a landscaper's point of view there was very little to interest a florist, or a lover of flowers.

To show the difference from a florist's point of view I would say that I would like to visit Chicago every year just to see Lincoln and South Parks and am sure that I would never visit Chicago in the summer without visiting both parks, but with due respect to Mr. McMillan, would not pay five cents car fare to see the Buffalo parks unless they learn there to plant flowers more extensively.

HERBERT G. WALKER.

Louisville, Ky.

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Advertisements, 10 Cents a Line, Agate;
Inch, \$1.40; Column, \$14.00.
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No reduction made for large space.

The Advertising Department of the AMERICAN FLORIST is for Florists, Seedsmen, and dealers in wares pertaining to those lines ONLY. Please to remember it.

Orders for less than one-half inch space not accepted.
*Advertisements for December 1 issue must REACH US by noon, Nov. 25. Address

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Most of these people don't know what they want, don't know, in fact, that they want anything, so you have got to tell them that they want it, explain to them why they want it, show them what they want, and then let them have it—good plants of the hardiest, thriftiest, most showy and desirable stock, and at reasonable prices.

MR. TUNIS DE PEW, a well known florist of Nyack, N. Y., is a man who says what he means and means what he says. Some time since his fellow townsmen wanted him to run for the office of Mayor of the village. He declined; they insisted, and he posted up a notice in the poll room that he was not a candidate, and if elected he would not serve. He was elected, but as he would not go back on his word he refused to serve and another election had to be held.

NEW WHITE CARNATION.—John McGowan, Orange, N. J., sends us a half dozen blooms of his seedling white carnation and they are certainly excellent. They are large, full, very white, with perfect calyx, on long stems and fragrant. Mr. McGowan states that the plant is a vigorous grower and very free bloomer.

DECEMBER 1 is the latest date at which you can get an adv. in the new trade directory which we are now preparing. Attend to the matter at once.

IN THE issue of *Garden and Forest* for November 6 appears an admirable half-tone plate of the beautiful fern *Gymnogramme schizophylla*.

Catalogues Received.

P. J. Berckmans, Augusta, Ga., plants and nursery stock; Reasoner Bros., Manatee, Fla., plants; Fraser & Lippincott, Huittsville, Ala., nursery stock; Hillebrand & Bredemeier, Pällanza, Italy, seeds and bulbs; E. Verdier, Paris, France, new roses; W. A. T. Strat'an, Petaluma, Cal., plants, seeds and bulbs; W. Allee Burpee & Co., Philadelphia, seed novelties; Gaines, Coles & Co., State Line, Miss., nursery stock; Harlan P. Kelsey, Highlands, N. C., nursery stock; E. M. Mitchell, Port Hope, Ont., plants; A. B. Strickland, Union Springs, Ala., plants and shrubs.

New Notes.

UTICA, N. Y.—J. Howells has built one new greenhouse 15x60.

MILWAUKEE.—Capar Thoman has leased his establishment to John Rost.

FORT DODGE, IOWA.—John M. Kellenberger has just completed two new houses 12x60 each.

ERIE, PA.—Miss Lena, daughter of W. Niemeyer, the florist, was married recently to Mr. Edward Auffinger, of this city.

CLEVELAND.—James Radie has just added to his nursery in Glenville four new rose houses each 104 feet long, heated by steam.

SUMMIT, N. J.—The New Jersey Social Florists' Club entertained a number of visitors on the occasion of their opening of reading room and bowling alley in their new building at Mr. J. N. May's nursery, November 14.

OREGON CITY, OREGON.—The Oregon City Nursery Co., Clack and Collins proprietors, have started into business here and have built two rose houses 16x75 each, one carnation house 10x75, one violet house 18x75, and a propagating house 10x75.

MONTREAL.—At a recent funeral here Florist Jas. McKenna lined the inside of the grave with autumn leaves placed so close together as to completely hide the soil. The mound of soil thrown out from the grave was covered with the crimson leaves of the sumach with some of the cones intermixed.

KALAMAZOO, MICH.—Geo. Taylor has built two new greenhouses 100 x 18 each, the finest in the city, the Mountain Home has added two small ones and E. F. Forbes one more. Jos. Dunkley's roses and carnations received first premium at the Detroit and Kalamazoo fair. Trade is very good at present. A heavy frost about October 1 killed everything outside and hurt celery.

DAYTON, O.—The florist business of Mrs. J. E. Heath who died August 1, will be continued by R. H. Heath. W. G. Matthews has been very ill with typhoid fever but is now recovering. H. H. Ritter has just completed a fine new carnation house 25 x 125 for growing the new fancy carnations. John Bochner and W. G. Matthews have each arranged to heat with natural gas.

NEW BEDFORD, MASS.—Florist F. Pasell gave on the 6th to the 9th insts. one of the finest exhibitions of chrysanthemums ever seen in this city. There were 600 plants, all grown to single stems and in the finest possible condition. A table of fifty grafted plants with from four to six varieties on each plant was a decided feature. Half of the proceeds of the show went to the Young Men's Christian Association.

MILWAUKEE.—The Wisconsin Florists' and Gardeners' Club elected officers as follows at the annual meeting held Nov. 6: President, C. W. Ringrose; Vice-President, Archie Middlemas; Secretary, J. M. Crowley; Treasurer, C. B. Whitnall; Trustees, M. P. Dilger, B. Gregory and Wm. E. Eilsen. It was decided to appoint a committee of three members to confer with the State Agricultural Society in reference to the selection of representative florists and gardeners on the list of judges of horticultural displays at state fairs in the future.

Boston.

Mr. C. M. Atkinson exhibited at Horticultural Hall on October 26 a finely bloomed plant of *Dischyanthus grandiflorus*.

Mr. David Smith long established and well-known as a manufacturer of hot water boilers, etc., has disposed of his establishment to one of his employees.

Mr. Frank Becker has recently returned from Europe. He gives an interesting account of the terrible destruction done by the early frost in the nurseries and gardens of Belgium.

An auction sale of imported shrubs, etc., was held on November 2 by Mr. Hatch for Mr. Joosten of New York. The quality of the goods was unusually good and prices averaged very well.

The residence of Jackson Dawson at Jamaica Plain narrowly escaped total destruction by fire recently. As it was, Mr. Dawson lost a number of highly prized horticultural works and other articles of value and interest. The cause of the fire is a mystery.

The mild weather with its attendant influx of chrysanthemums has made life a burden to the rose growers for the past fortnight, and the effect on the flower trade in general has been most unfavorable. The street fairs are on all sides, staggering under loads of chrysanthemums, roses and carnations. Violets sell well, however, and do not seem to suffer much from the situation. A few *Primula obconica* and cyclamens are beginning to come in.

At the November meeting of the Gardeners' and Florists' Club, Mr. E. A. Wood exhibited for the first time the following seedling chrysanthemums: J. H. Freeland, a very handsome flower, creamy white suffused with pink, the center petals standing erect, making a large, deep flower; Mrs. E. W. Wood, a full double flower of a deep magenta shade with a peculiar unevenness of the petals resembling crumpled paper; and an unnamed variety, a small reflexed flower having ten or twelve rows of the purest white petals, making a very deep bloom.

W. J. S.

OBITUARY.

ANDREW EADIE, son of the late James Eadie, of Cleveland, died at his home in Glenville, October 23, aged 35 years.

He was born in Scotland, but was brought to this country by his parents when a child of 2 years. He has been engaged in the florist business all his life, acting as foreman for his father for the last ten years owing to the latter's poor health. He leaves a widow and three small children.

Andrew Eadie was one of the most popular young men in the trade in Cleveland. He was progressive in his ideas and a most genial companion when it was always a pleasure to meet, and a large circle of warm friends will mourn his untimely death.

VARIEGATED MUSA ENSETTE.—In reply to Messrs. G. R. Clark & Co. I would say that I have plants of *Musa ensete* which are distinctly variegated. The plants are strong. I raised them from young sprouts.

Kalamazoo, Mich. FRANK GOEIKE.

WHEN SENDING us copies of papers do not fail to distinctly mark the item you wish us to see. We receive so many that we can not spare the time to hunt up items unless plainly marked.

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	BOSTON, Nov. 9.
Roses, Teas.....	\$1.00
" Goutier.....	2.00 @ 3.00
" Niphetos.....	2.00 @ 3.00
" Perle, Sunset.....	7.00 @ 4.00
" Mermet, Bride.....	4.00 @ 5.00
" Wootton.....	15.00 @ 20.00
" Beauty.....	15.00 @ 20.00
Carnations, white.....	1.50 @ 2.00
Carnations, colored.....	.75 @ 1.00
Bouvardia.....	1.50
Tuberose.....	1.00
Violets.....	1.00
Callas.....	12.00
Valley.....	6.00
Microcotte.....	1.00
Chrysanthemums, fancy.....	6.00 @ 12.00
Chrysanthemums, common.....	.50 @ 1.00
Smilax.....	1.00 @ 2.00
Adiantums.....	1.00 @ 1.50

	NEW YORK, Nov. 9.
Roses, Bon Silene.....	\$1.00 @ \$2.00
" Perle, Niphetos, Nov. 9.....	2.00 @ 3.00
" Goutier.....	2.00 @ 3.00
" Mermet, Brides.....	5.00 @ 6.00
" Bennett, Castles.....	5.00 @ 6.00
" La France.....	6.00 @ 8.00
" Am. Beauty.....	25.00 @ 40.00
" Wootton, N. Hoste.....	1.00
" Duchess of Albany.....	20.00
Carnations, fancy, long.....	1.50
Carnations, short.....	1.00
Microcotte.....	2.00
Smilax.....	10.00 @ 15.00
Lily of the valley.....	1.00 @ 1.50
Violets.....	1.00 @ 1.25
Adiantums.....	1.50

	PHILADELPHIA, Nov. 9.
Roses, Perle, Niphetos.....	\$1.00
" Am. Beauties.....	12.50 @ 15.00
" Mermet.....	3.00 @ 5.00
" La France, Watteville.....	5.00
" Brides, Bennetts.....	4.00 @ 6.00
" Wootton.....	5.00
" P. Gaillet.....	5.00
Carnations, long.....	1.00 @ 1.50
Carnations, short.....	.75
Violets, double.....	.50
Violets, single.....	.30 @ .25
Pansies.....	1.00
Chrysanthemums, long.....	1.00
Chrysanthemums, extra big.....	8.00 @ 25.00
Smilax.....	15.00 @ 20.00
Adiantums.....	1.00
Asparagus plumosus.....	25.00
	60.00

	CHICAGO, Nov. 11.
Roses, Perle, Niphetos.....	\$4.00 @ \$5.00
" Bon Silene.....	2.00 @ 3.00
" Goutier.....	5.00
" Mermet.....	5.00 @ 7.00
" La France, Brides.....	6.00 @ 8.00
" Bennetts, Dukes.....	6.00
" Am. Beauties.....	15.00 @ 20.00
Carnations, short.....	1.25 @ 1.50
Carnations, long, fancy.....	2.00 @ 3.00
Smilax.....	15.00 @ 20.00
Bouvardia, heliotrope.....	1.00
Pansies.....	.75
Tuberose.....	1.50
Callas.....	15.00
Adiantums.....	1.00 @ 1.25
Chrysanthemums.....	1.00 @ 1.50
Violets.....	1.00

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3,000 AM. BEAUTY, 6,000 BRIDES,
2,500 PURITAN, 2,000 MERMETS,
2,000 MME. HOSTE, 2,500 GONTIERS.

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Re Seed Trade.

SEED TRADE ASSOCIATION.

H. W. JOHNSON, Philadelphia, president; ALBERT M. McCULLOUGH, Cincinnati, secretary and treasurer. The eighth annual meeting at Saratoga Springs, N. Y., June, 1890.

IT IS SAID THAT Messrs. Burpee & Co. will reduce their catalogue to the amount of one cent in postage.

MESSRS. PETER HENDERSON & Co. have already printed some departments of their 1890 catalogue.

MESSRS. HALLOCK, HENDERSON, BURPEE and CHILDS are said to control entire stock of the new Ruby and Gold Watermelon.

VISITED CHICAGO: Mr. Thos. Griswold, Mr. Chas. Woodill, of Thorburn & Co., Mr. O'Neill, of D. Landreth & Sons, Mr. Wm. Henry Maule.

HENRY A. HANNA for 12 years connected with D. Landreth & Son as traveler, and located in St. Louis, died last week at his residence in that city, aged 48 years.

THE CANAJOHARIE *Courier* of Sept. 3, 1889, gives some interesting details concerning the financial management of the A. C. Nellis Seed Co. by its former president, Mr. A. C. Nellis.

FARMERS in the pea districts of Northern New York are organizing with a view to dealing direct with the seedsmen, and thus escape the profit now received by the contracting middleman.

AN ADVERTISEMENT in the new trade directory we are now compiling will be a standing adv. for at least two years. Order and copy must be received by December 1 at latest. Rates sent on application.

J. A. EVERITT & Co., seedsmen, of Indianapolis, have sold their monthly paper, the *Agricultural Epitomist*, to The Epitomist Publishing Co., Hoss & Palmer, proprietors, and will hereafter manage their seed business as a separate concern.

SEND IN your order now for a copy of the new directory, price \$2. It will be ready January 1 next and will be a great advance on the old one. We have spared no expense or labor to make the list perfect, and from the enormous number of changes made from reliable information we believe it to be as near correct as it is possible to get it.

AKRON, O.—Bert T. Wills is reported to have burned out. No particulars.

SITUATIONS, WANTS, FOR SALE.

Advertisements under this head will be inserted at the rate of 10 cents a line (ten words) each insertion. Cash must accompany order. Plant advts. not admitted under this head.

SITUATION WANTED.—Experienced, competent florist and gardener; German, single, middle aged man. **FLORIST,** P. O. Box 265, Marysville, Kan.

SITUATION WANTED.—By experienced, competent florist and gardener. Private or commercial. Married. Address G. R. care American Florist.

SITUATION WANTED.—Gardener, Swedish, 10 yrs. experience in all branches, thorough knowledge of gardening generally. Highest references from English gardens. **HORTICULTURUS,** care Am. Florist.

SITUATION WANTED.—By a rose grower and general planter. Good propagator and floral worker. Capable of taking charge of commercial or private concern. Address L. M. MAY, 25 Stone Street, Rochester, N. Y.

SITUATION WANTED.—By an Englishman single, aged 39, as head gardener in private or commercial place; several years' experience in this country; first-class rose grower. Best of references. Address H. C. P. O. Box 548 Auburndale, Mass.

SITUATION WANTED.—As foreman or first assistant in commercial place; 8 years' experience—3 years in order department; 2 years in seed room. Understand cut flower work. Understand propagating roses and all soft stuff for shipping trade. Married, one child. Reference given. Address H. F. GOOD, 1012 Market St., Shreveport, La.

WANTED.—Chrs. Hakenson, please send your address to H. ANDERSON, P. O. Box 228, Fort Worth, Texas.

WANTED.—A practical florist, to buy or lease a half interest in a 36-acre tract under cultivation as a market garden; business well established. Address S. PHIPPS, London, Madison Co., O.

WANTED.—A first class rose grower, single, who thoroughly understands his business and is not afraid to work, to take charge of my rosehouses, etc.; 30,000 feet of glass on the place. A permanent place to the right man. State salary and references to H. F. A. LANGE, 314 Main St., Worcester, Mass.

FOR SALE.—Two large greenhouses full of good stock will be sold cheap for cash. 1235 North Western Avenue, Chicago.

FOR SALE.—One to five acres, two greenhouses 18 x 100, shed stable, dwelling, etc. All new; two miles from Denver. Our sunny climate is recommended for its healing qualities. Address Box 10, Montclair, Colorado.

FOR SALE CHEAP.—One No. 16 Hitches Corrugated Fire Box Greenhouse Heater, capacity 400 square feet of ash; in use three months. Guaranteed good as new. P. GORMLEY, 145 N. 10th St., Philadelphia.

FOR RENT.—Four greenhouses well stocked for \$100 a month; big business expected here this season; party renting can also buy store, best location in town. A snap for right person. AUG. SCHENKEL, 907 10th St., Denver, Colo.

FOR SALE.—A good established florist business in a city of 16,000 inhabitants; 5,500 feet of glass, good stock greenhouse and bedding plants; city water; house heated by steam; all in good repair; business paying well. Good reason for selling. Mrs. GEO. LOW, Stillwater, Minnesota.

FOR SALE.

The Messenger place; 2½ acres of land, 6 greenhouses heated by hot water, houses well stocked, boilers in good order. Nice dwelling and stable, large local trade in flowers and plants; 15 years established. Situated in Milton, a growing suburb of Boston, ½ mile from R. R. station. Terms easy. Address

W. J. STEWART,
67 Bromfield St., BOSTON, MASS.

DOUBLE WHITE PRIMULAS

Fine plants, from 3-in. pots at \$9 per 100

BOUVARDIAS.

Strong plants, from 5 and 6-inch pots at \$15 per 100, ADDRESS

A. R. REINEMAN & BRO.,
39 Fifth Ave., PITTSBURGH, PA.

FEW THOUSAND VIOLET PLANTS LEFT.

All in bloom buds, good, strong, healthy plants, 10 per cent. better than last year. Per 100 Per 1000
Marie Louise, double blue..... \$2.50 \$22.00
Star, single blue..... 2.50 22.00
Swanley White double white..... 2.00 18.00
Runners of Swanley White, well rooted, 1.00 8.00
Also 300 Magnolia grandiflora in 2 and 2½-in. pots..... 5.00 45.00
Or will sell 500 of any of the above at 1000 rates. Cash must accompany orders from unknown parties. Address M. TRITSCHLER & SONS, HYDE'S FERRY GARDENS, NASHVILLE, TENN.

HEADQUARTERS FOR

Decorative Stuff, as

PALM LEAVES and PLANTS,
Pines, Wild Smilax, Etc.

A. C. OELSCHIG, Savannah, Ga.

THE
American Florist Company
will publish a **CORRECTED EDITION** of the

DIRECTORY
OF
Florists, Nurserymen and Seedsmen

FOR 1890

About January 1, next.

A large number of new names will be added, changes and corrections made, bringing the Directory up to date and we believe much nearer perfection than the old list. We have been collecting the material ever since our last edition was published, and the largest proportion of the changes and additions will be made from the printed cards, letter heads, etc., of those in the trade received since early in 1887. Corrections from such data can be relied upon as being absolutely correct, and the great value of a correct and complete list to the trade can not be over estimated.

The permanent value of a **STRICTLY TRADE** advertisement in a book of this kind is recognized by all. Send in your advertisements at as early a date as possible.

ADVERTISING RATES SENT ON APPLICATION.

Every advertiser is entitled to a copy of the Directory.

Subscriptions for the revised Directory at \$2.00 a copy are solicited.

AMERICAN FLORIST CO.,
54 LA SALLE STREET, CHICAGO, ILL.

EVERY READER OF "THE AMERICAN FLORIST" IS COR-
DIALY INVITED TO ATTEND A UNIQUE EXHIBITION

—) OF (—

CHRYSANTHEMUMS

AND ORCHIDS,

— AT THE —

UNITED STATES NURSERIES,

SHORT HILLS, NEW JERSEY,

Respectfully,

PITCHER & MANDA.

TIME TABLE D. L. & W. R. R.

Trains leave Christopher or Barclay Street, New York City, for Short Hills, 7.30, 8.40, 10.10, A. M.; 1.30, 2.30, 4.00, 4.30, 5.20, 5.40, 6.00, P. M.

Leave Short Hills, 9.50, 10.20, 11.00, A. M.; 12.15, 1.44, 3.00, 5.08, 6.58, 8.34, P. M.

ROSES, for Forcing.

Bon Silene, Souv. d'un Ami, Cook, Papa Gontier, and M. Niel, strong plants from 3-inch pots, \$3.00 per 100.

TEAS Strong plants, labeled sorts, from open ground, \$5.00 and \$8.00 per 100.

VERBENAS.

Perfectly healthy stock. Per 100 Per 1000

Mammoth Collection, from pots..... \$ 4.00 \$40.00

General " " "..... 3.00 30.00

" Rooted Cuttings... 1.00 10.00

Mammoth " " "..... 1.25 12.50

AMPELOPSIS VEITCHII, strong plants \$ 8.00

WOOD BROTHERS,

(Successors to I. C. WOOD & BRO.) FISHKILL, N. Y.

Mention American Florist.

ROSES.

35,000 of the leading Forcing and Bedding varieties: TEAS, HYBRID TEAS, and HYBRID PERPETUALS. Teas, \$3.00 per 100; Hybrids, \$4.00 per 100. My selection of varieties. Also the leading Prize winning varieties of CHRYSANTHEMUMS, CARNATIONS, and general Greenhouse stock.

Trade List mailed on application.

JACOB SCHULZ,

LOUISVILLE, KY.

Mention American Florist.

SCHILLER & MAILANDER,

Niles Center,

TELEGRAPH: MORTON GROVE, ILL.

Offer this season a good supply in Cut-blooms of Carnation (Hinze's White), and Smilax, at market price.

Mention American Florist.

Carnation Cuttings.

Strong and healthy Carnation Pips or unrooted Cuttings, in all the new and leading varieties. Ready now.

Send for prices, and order at once.

Geo. Hancock,

GRAND HAVEN, MICH.

Mention American Florist.

TREE ROSES.

4 to 5 Feet High.

Pot grown plants, and also from open ground. Best varieties and best plants in the country. Now ready for Fall trade.

GABRIEL MARC & CO.

WOODSIDE, L. I., N. Y.

IMPORTED H. P. ROSES,

Worked low on the Manetti Stock, offer the best results to the florist, blooming freely and giving plenty of cuttings for propagating quickly. Fine plants for sale by the 100 or 1000, at low rates.

Price Lists to applicants. Address

WILLIAM H. SPOONER,

JAMAICA PLAIN, (Boston), MASS.

G. BENARD,

ORLEANS, FRANCE.

ROSES ON THEIR OWN ROOTS

A SPECIALTY.

NURSERY STOCK OF ALL DESCRIPTIONS

For particulars apply to

E. BENARD, Jr.,

P. O. Box 1400.

SAN DIEGO, CAL.

New Copper Labels

FOR PLANTS AND TREES.

Absolutely Imperishable.

No string or wire required.

This label is made of Prepared Copper, extremely soft and pliable, and the name of the plant or tree is written or INDENTED easily with any pointed instrument. The inscription thus made is clear and distinct and will remain so as long as the plant lives.

Samples sent on application.

PRICE, \$1.50 per Gross. 10 per cent. Discount in 10 Gross lots.

JOHNSON & STOKES,

Seedsman,

217 & 219 Market St., PHILADELPHIA, PA.

NEW DIRECTORY.

THE AMERICAN FLORIST CO. WILL PUBLISH A NEW EDITION OF THEIR WELL KNOWN TRADE DIRECTORY OF THE UNITED STATES AND CANADA,

and propose to issue the same in time for spring trade of 1890. All persons in the trade who know of any changes from former Directory, either because of errors in that or of new places, are requested to send us the same.

We propose, where possible, to state amount of glass owned by each firm; and all who report to us are urged to state amount they have in round numbers that we may insert the same in the Directory.

ADDRESS

AMERICAN FLORIST COMPANY,

54 La Salle Street, CHICAGO.

A Recent Dialogue.

FLORIST—Here's some of those new roses. They're just like all the other great novelties. They don't grow at all and the blooms are nubbins.

VISITOR—Yes they do look poor, but none of your roses seem to look any better. These Bon Silenes look fully as tough and if you can't grow Bons how can you expect to grow others? Besides, that soil is miserable stuff, and is as dry as dust in spots, and guess you haven't been through this walk lately for the spider's webs are thick, and it seems as though all the water had been thrown into the walks instead of on the benches. I don't blame you for keeping out of here as much as possible for it is awful punishment to wade through such mud. No wonder your roses are diseased. Why, just look at the greenfly, there's a million if there is one! And say! If that isn't the toughest—

FLORIST—Get right out of here!

[There was no mistaking the tone of this last, and the visitor "got."]

PRIMULAS.

Strong plants of P. Obconica for winter flowering, in light cases, by express. \$5.00 per 100. Fresh Crop (1889) Seed of "Obconica" \$1.00 per 1000 seeds.

ADIANTUMS.

A. CUNEATUM, from 2½-inch pots..... \$2.00
A. MORITZIANUM, from 3-inch pots..... 6.00
bushy plants, grand for dilling ferneries, etc. 6.00

FISHER BROS. & CO., Montvale, Mass.

Mention American Florist.

NEW PRIMULA OBCONICA SEED. CROP. (about 1000 seeds) \$1.00

PRIMULA FLORIBUNDA, pkt (100 seeds) 25c.

PRIMULA OBCONICA PLANTS, from 3 & 3½-inch pots, \$1.25 per doz.; \$10.00 per 100.

PRIMULA FLORIBUNDA, 2-inch pot plants, 60 cts. per doz.; \$4.00 per 100.

L. N. KRAMER & SON, Marion Iowa.

NEW CHRYSAETHENUM

"Nymphæa." A decided novelty. Form and fragrance of Ford Lily. Fine for florists' use. As to the *crème de la crème* of other varieties. Send stamp for plate of "Nymphæa" and Catalogue.
H. W. HALES, Ridgewood, N. J.

VERBENAS.

Orders booked now for rooted cuttings.

STOCK ABSOLUTELY HEALTHY.

NEW MAMMOTH SET, \$1.25 per 100, \$10.00 per 1000. General Collection, most approved sorts, largely of best MAMMOTH, \$1.00 per 100, \$8.00 per 1000. SMILAX, 2½-inch pots, \$2.50 per 100, \$20.00 per 1000.

Address J. G. BURROW, FISHKILL, N. Y.

TO THE TRADE.

Contracts taken now for ROOTED CUTTINGS of GERANIUMS and VERBENAS, RUNNERS, both of which can be had after December 1st. Correspondence solicited.

JOS. RENARD,

UNIONVILLE, Chester Co., PA.

Telephone connection. All telegrams should be sent to WEST CHESTER, PA.

2000 Rooted Cuttings Coleus..... Per 100 \$1.25
100 Tabernaer Begonias, 2½-inch pots..... 6.00
100 Metalica " 2½-inch pots..... 3.00
500 Dracena indivisa, 3-inch pots..... 8.00
Mrs. Alpheus Hardy, 3½-inch pots..... Each .25
Mr. Andrew Carnegie, 2½-inch pots..... each .75

W. W. GREEN, SON & SAYLES, WATERTOWN, N. Y.

APPLE GERANIUM SEED.

Fresh Crop of 1889. We can supply by 1000 or 10,000, as desired.

Per thousand..... \$2.50
Per ten thousand..... 20.00

COLEUS SEED, Crop of 1889 all sold.

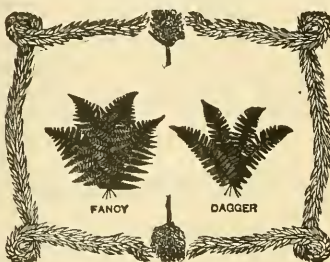
ADDRESS BROTHERS INDUSTRIAL GARDENS, MOBILE, ALA.

CHRYSAETHENUM ADA SPAULDING.

Awarded at Indianapolis the Mrs. President Harrison Cup for BEST New Seedling. Price to the trade on application.

Stock plants of choice American and Foreign varieties now ready.

T. M. SPAULDING, ORANGE, N. J.



1,000,000 EVERGREEN CUT FERNS

ESPECIALLY FOR FLORISTS' USE.

\$1.50 per thousand Ferns. Discount on large orders. Special attention paid to supplying to the wholesale trade. Write for prices.

BOUQUET GREEN. \$2.00 per bbl. (30 lbs.)

\$5.00 per 100 lbs.

20,000 yds BOUQUET GREEN WREATHING, all wound with wire in first class manner per yard

3-in. flat or one sided wreathing..... 4 cts.

3-in. round wreathing, with cord in center..... 6 cts.

4-in. round wreathing, with cord in center..... 8 cts.

5-in. round wreathing, with cord in center..... 10 cts.

700 BLS. DRY SPIRÆNTH MOSSES.

\$1.00 per bbl or 5 bbls. for \$5.00. Write for terms on large lots.

L. B. BRAGUE, Hinsdale, Mass.

CARNATION BLOOMS.

Will accept standing or transient orders from bouquet makers or others for CARNATION BLOOMS, long or short stems, in colors of CRIMSON, WHITE, PINK, SCARLET, CARMINE, YELLOW, VARIEGATED, ETC. A large and very fine stock of Fancy Blooms, in new and beautiful colors.

A BOX OF A DOZEN NEW VARIETIES CORRECTLY LABELLED WILL BE MAILED TO ANY ADDRESS ON RECEIPT OF 50 CENTS.

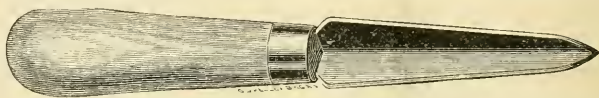
CHAS. T. STARR, AVONDALE, Chester Co., PA.

REMOVAL.

Friends will please notice that I have occupied my new printing house, which is ideally situated and fitted up for

HORTICULTURAL PRINTING, with treble my former facilities, and plenty of room for extension. I am now ready to give better satisfaction than ever on Catalogues or any printing for florists, from the basis of a thorough knowledge of both flowers and printing. ADDRESS NOW

J. HORACE MCFARLAND, Mount Pleasant, Harrisburg, Pa.



CLEVES' ANGLE TROWEL. This taking novelty will be catalogued the coming season by the largest houses in the trade. It is a PERFECT PLANTING DIGGER and the handiest little tool yet seen for the Greenhouse and Flower Gardener. Shank and blade one solid piece of steel. \$2.00 per dozen. Small electro free.

THE FLORAL SUPPLY CO., Binghamton, N. Y.

THE SYRACUSE NURSERIES

OLD AND RELIABLE. LARGEST AND MOST COMPLETE Assortment of Nursery Stock in America.

In BUDDED APPLES and STANDARD PEARS they acknowledge no competition—quality considered. Nurserymen and Dealers will consult their own interests by getting prices on this SUPERB STOCK before buying. Special inducements to buyers in large quantities.

SMITH, POWELL & LAMB, SYRACUSE, N. Y.

GRAPE DUST

KILLS MILDEW ON ROSES.

SOLD BY SEEDSMEN.

For Samples address SLUG SHOT, Fishkill-on-Hudson, N. Y.

ROSES A SPECIALTY.

H. H. BERGER & CO.,

IMPORTERS AND GROWERS OF

European, Japanese and Australian

NURSERY BULBS AND

STOCK, SEEDS.

Depot and Greenhouses, 19th and Folsom Sts.

Address P. O. Box 1501. SAN FRANCISCO, CAL.

JUST RECEIVED FROM AUSTRALIA:

FRENCH Arancaria Excelsa Seed (best crop for yrs.)

Kentia Belmoreana, Fosteriana, Canterburyana.

Arcen, Corypha Australis, etc.

SEND ORDER AT ONCE.

FLORISTS

MAILING AND CUT FLOWER BOXES.

Read what C. A. REESER says for our 3-PIECE BOX:

GENTLEMEN—I write to tell how well pleased I have been with the mailing boxes you have furnished me during the past two years. I think I have ordered 25 or 30 thousand, thus giving them an extensive trial. I think there is nothing in the market that is so satisfactory, at least, that has been my experience, and I have tested nearly, if not quite all the boxes in the market for that purpose.

Yours very truly, CHAS. A. REESER.

Send for price list, free. Sample sent 15c.

SMITH & SMITH, Kenton, Ohio.

POLMAN MOOY,

HAARLEM,
HOLLAND.

TRADE MARK.

NO AGENTS.

FORCING BULBS

VALUABLE NOVELTIES
IN TULIPS.

BEST FORCING DAFFODILS.

77" Write for new list, now ready.

R. VAN DER SCHOOT & SON,

HILLEGOM, HOLLAND.

LARGEST GROWERS OF

HYACINTHS, TULIPS, NAR-
CISSUS, SPIRÆA, LILIES
OF THE VALLEY, ETC.Headquarters for Forcing Bulbs. Whole-
sale Importers should write us for prices.

Association Flora, Boskoop, Holland.

NOW ON HAND IN NEW YORK:

25,000 Dwarf budded Roses in sorts.
3,000 Rhododendrons in sorts.
3,000 Azalea Mollis and Pontica in sorts.
2,000 Clematis, extra strong plants.
Trees, Shrubs, Evergreens, Conifers, Pæo-
nias and other herbaceous plants.

PLANTS FOR FORCING AND DECORATING.

Address

P. OUWERKERK,

212 Fulton St., NEW YORK CITY.

Catalogue on application.

TRY DREER'S
GARDEN SEEDSPlants, Bulbs, and
Requisites. They are the
best at the lowest prices.
TRADE MARK issued
quarterly mailed free.HENRY A. DREER,
PHILADELPHIALarge Irish BEACONSFIELD Yellow Primrose
for Naturalization in the States.

WM. BAYLOR HARTLAND, Seedsman,

CORK, IRELAND.

Offers New Seed just harvested, per lb. 50s; ½ lb. 25s
6d; 1 lb. 5s; once 5s, for immediate reply and cash
with foreign orders, so long as unsold. Old established
Seed Warehouse, 24 Patrick St., Cork.He also offers the crop of the SNOWGLORY
(Chionodoxa), and Prize Trumpet Daffodil
Seed, from his celebrated collection.MRS. J. S. R. THOMSON, Spartanburg, S. C.
(2 years State Vice-President S. A. F.)OFFERS TO TRADE Moon Flower Seed, Eu-
anthias, Discocora, Crinidus, Pancratiums, 3 var. An-
tillias, Antigonon leptopus, open air grown Tea
Roses 1 year, 3 var. Liatris, Euphorbia corollata,
Crozy's Dwarf Cannas and C. decedica, Candidum
esculentum.SUNNYSIDE FLORAL NURSERY,
JAMES M. LAMB, Proprietor, Fayetteville, N. C.DON'T FORGET that we can furnish the trade
first class Pearl and double Italian Tuberose bulbs
November delivery at \$1.10 per 100; 2nd size \$1.00.
We also have Cape Jasmine from 1 to 4 ft. Azaleas
double and single 1 to 2 ft. Olen fragrans 12 to 15
inches bushy, in 4 in. pots; Clematis crispas; Venus
Fly Trap; Sarcocoea purpurea and dawa, and other
native plants at reasonable prices, and in any
quantity.

WOULD LIKE TO EXCHANGE

Strong young plants of Alternanthera parvifolia-
des major and area nana; for Rooted cuttings of
Geranium d. Mangilli. Or would like to buy about
1000 Rooted Cuttings AddressH. SCHLACTER, Florist,
WINTON PLACE, OHIO.

V. H. Hallock & Son's Trade Catalogue

— OF —

FLORISTS' BULBS and SEEDS, NOW READY.

LILIUM HARRISII, 5 to 7-inch. . . . \$7 00 per 100; \$65 00 per 1000
" " " 7 to 9 inch. . . . 9 50 " 90 00 "TUBEROSE EXCELSIOR PEARL, READY NOV. 1,
\$1 50 per 100; \$12 50 per 1000; f. o. b. New York.

Very complete list of seasonable "Florist Seeds," PRIMULA, PANSY, DAISY, &c.

WE CARRY 400 VARIETIES OF CHRYSANTHEMUMS.

Plants ready to ship at all times.

GLADIOLUS "SNOW WHITE"

will be for sale by all dealers next January. To all wishing a description, or to cata-
logue this New Pure White variety, a description with prices will be sent on appli-
cation.

V. H. HALLOCK & SON,

QUEENS, N. Y.



Dutch Bulbs in Endless Quantities

HYACINTHS OF FINEST QUALITY.

TULIPS OF ALL LEADING VARIETIES.

CROCUS, NARCISSUS, FREESIA,
LILIUM CANDIDUM AND HARRISII
AND ALL OTHER FLORISTS' WANTS, AT WONDERFULLY
BULBS FOR LOW PRICES.

Wholesale List mailed on application.

Z. DE FOREST ELY & CO.,

WHOLESALE GROWERS AND IMPORTERS,

1301 & 1303 Market St., PHILADELPHIA, PA.

J. A. DE VEER,

183 WATER ST., NEW YORK,

offers Finest Stock of DUTCH BULBS, ROMAN HYACINTHS, PAPER WHITE NARCISSUS, LILIUM
CANDIDUM and HARRISII, LILY OF THE VALLEY (True Berlin pips and Dutch clumps),
FREESIAS, CALLAS, AND OTHER DESIRABLE

FORCING BULBS FOR FALL DELIVERY.

Also prime Nursery Stock, such as Roses, Azaleas, Camellias, Rhododendrons,
Seeds, etc., from leading growers in France, Belgium, Holland and Germany, at lowest prices.

Sole Agent for HOOPER'S Celebrated Porcelain Flowers.

CATALOGUES FREE TO THE TRADE.

FALL BULB LIST NOW READY.



TIME NOW TO ORDER

BOUQUET GREEN, HOLLY, PAMPAS
PLUMES, FLORISTS' SUNDRIES, and
all goods for the HOLIDAYS.

STILL ON HAND:

A few thousand ROMAN HYACINTHS, DUTCH
HYACINTHS, NAMED and MIXED TULIPS,
NARCISSUS, LILIES, ETC.

JAMES KING,

170 LAKE STREET, CHICAGO, ILL.

CYCLAMEN

Seed from our best plants, chiefly Giganteums, an
extra fine strain. White, white with crimson and
mauve base spotted, and shades of crimson and lilac.
Sow at once. Our sowings are germinating freely.
Per packet 25c, 50c and \$1.00.

J. LAURENCE, Harrisburg, Pa.

MRS. F. A. GRANTHAM,
VAIDEN, MISS.Offers to the trade: Evergreens of all kinds, such as
Mistletoe, Holly, English Ivy, etc. Also Cut Flowers,
all varieties in season. Cape Jessamines and Sweet
Violets a specialty. Correspondence solicited.

Send your address for my 1890

SEED CATALOGUE.

M. B. FAXON,

BOSTON, MASS.

Foreign Grape Vines for Graperies.

Splendid 1 and 2 year old vines, true to name,
grown by an expert. List of varieties and prices
mailed on application. HENRY A. DREER,
714 Chestnut St., Philadelphia, Pa.

Chinese Sacred Lily.

The fact that great anxiety existed in the minds of people to learn the origin of the Chinese sacred lily induced us to procure at great expense, the services of two antiquarians and three linguists, whose labors after close study and careful research for a period of one hundred days and two hundred nights, have been rewarded by the elucidation of the following graphic and concise history:

TRUE TRANSLATION OF THE CHINESE LABEL ON THE BASKETS, GIVING THE HISTORY OF THE SACRED LILY.

On the 4th of July, 1576, Ili Kin Foo, great and immortal Emperor of all the Chinas and brother-in-law to the moon, was out gunning for reed birds in the marshes around the Island of Juan Fernandez, which is around the corner from the Island of Pekin. His attention was drawn to what he supposed to be a beautiful bird, but which proved to be one of the many lilies growing there. It was afterward discovered that they were planted by Robinson Crusoe, private secretary to Christopher Columbus, who had a summer residence there.

The Emperor dug them up and brought them home to his palace intending to put them in his greenhouse, but his cook happened to see them and supposing they were onions took them into the kitchen, cut them up and was about to put them in the pot. But the Emperor hearing of it ran into the kitchen and dragging the cook out ordered her to be beheaded in two places and hung in three.

Then she was cut up and boiled in her own pot and buried in the kitchen garden back of the palace along with the remains of the lily roots she was cutting up. But the germs of the lilies had life in them, and the old cook providing good fertilizing material they grew to a wonderful size and excited the admiration of the whole China world. The Emperor placed two companies of soldiers over them as guard. They had two cannons. One was loaded with the pieces of the cook's pot, her back comb and hair pins, and the other with pin wheels, chasers and roman candles. These awful preparations struck terror into the whole Chinese nation and from that date these lilies were always considered sacred.

NIP AND TUCK.

PEACH PITS FOR Nurserymen

We offer the following choice stock of PEACH STONES, from original Seedling trees, at net cash prices. Free on board cars or steamer, Philadelphia, paks included.

Tennessee Natural, per bu.	\$1.75, per 10 bu.	\$15.00
Virginia " "	1.50, "	12.50
Smocks " "	1.25, "	10.00

Prices are for measured bushels. Special prices for larger quantities. Catalogues free.

WM. H. SMITH, Seedsman,
P. O. Box 1579. 1018 Market St., PHILA., PA.

GEO. W. CALDWELL,
FLORISTS' - SYLVAN - SUPPLIES.
Evergreen, Ala.

CUT FERNS IN VARIETY.
Evergreen and Deciduous; also Mosses, Holly, Mistletoe, Wild Smilax and all Evergreens. Telegraphic orders receive prompt attention. Correspondence solicited.

When you have a large Decoration consult me.

FOR SALE.
1,500 Extra Fine Otateite Orange TREES

for 4½ to 5-inch pots, in the very best condition for winter and spring blooming, at \$15.00 per 100.

Arnold Puetz,
GREENLAND, FLA.

AUGUST RÖLKER & SONS

44 Dey Street, NEW YORK.

HORTICULTURAL DEPOT

—AND—

PLANT AUCTIONEERS.

TWO SALES EVERY WEEK.
CONSIGNMENTS SOLICITED.



Any one with a cellar or stable can do it. Our pamphlet, "How to Grow Mushrooms," gives full instructions. Send for it. A trial brick of Mushroom Spaw (enough to plant a space 5 ft. by 4 ft.) sent by mail, to any address for 22c. 10 lbs., by exp. for \$1.20. 50 lbs. for \$5. Our handsomely illustrated catalogue of Vegetable, Flower, and Farm Seeds, and all requisites for Farm, Garden, and Lawn, free to all.

JOHN GARDINER & CO., 21 North 13th St., Phila., Pa.

A. BLANC,

PHILADELPHIA, PA.



Electro of this Cut
\$1.50, Smaller 75c.

ENGRAVER FOR FLORISTS.

LARGEST STOCK OF ELECTROTYPES OF PLANTS AND FLOWERS FOR FLORISTS' CATALOGUES, ETC. Complete Catalogues 50c. deducted from first order. Agency for the sale of Electros of MESSRS. VILMORIN ANDRIEU & CO., (Paris.) Mention American Florist.

SURPLUS STOCK.

ROSES: Papa Gontier, Sunset, Perle des Jardins, Hermosa, Sombreuil, M. Niel, La France, Niphetos, C. R. du Parc, Washington (Noisette), fine plants, from 3-inch pots, \$5.00 per 100; 2-inch pots, \$4.00 per 100.

SMILAX: 2-inch, fine, per 100, \$3.00
ALYSSUM, double, " 3.00

BEGONIA RUBRA, 3-inch, " 4.00
BEGONIA ALBA PICTA (new) fine " 4.00
STAEHELIA SERPENTINA " 3.00
EUCHARIS AMAZONICA, 4-in. fine, per doz. 2.00

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Gladiolus, English Forcing.

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[Mention The American Florist.]

Toronto.

The first regular meeting of the Toronto Gardeners' and Florists' Club was held Wednesday, October 16, at The Steele Bros. Co. King street store, Mr. Geo. Vair acting as chairman pro tem.

The election of officers for first year resulted as follows: President, John Chambers; 1st Vice-President, Geo. Vair; 2nd Vice-President, C. J. Tidy; Secretary, Jno. H. Dunlop; Assistant Secretary, H. Simmers; Treasurer, A. Gilchrist; Executive Committee, F. G. Foster, Wm. Houston, J. Cottrell, W. Lightfoot, A. Ewing, T. Manton and Geo. Reeves.

The constitution and by-laws of the New York Florists' Club with slight alterations were adopted. This was all the business of first meeting, but prospects are good for a lively winter's work.

Mr. A. Macpherson, gardener for Col. Sweny, has a seedling canna that he raised this season that is quite remarkable. The ground color is light yellow with green streaks through it with a bright pink margin on edges. It would remind one of a well marked dracaena. He is raising some of the side shoots that promise to outlive the parent plant in marking.

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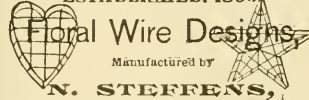
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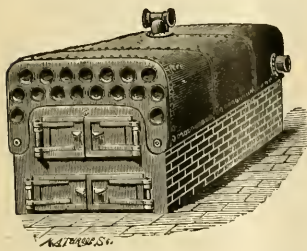
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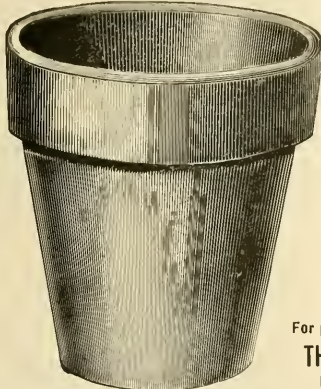
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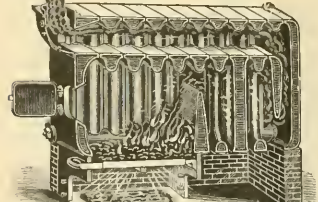
Index to Advertisers.

Advertising Rates, etc.	164
Aldine Printing Wks.	171
Aldrich A. W.	171
Allen, W. S.	165
Association Flora.	169
Bancroft Jos.	171
Bayardorfer M & Co.	174
Bench & Co.	170
Benard G.	167
Berger, H. H. & Co.	163
Blackely Printing Co.	174
Biano A.	170
Boynton W. D.	171
Brague J. R.	168
Brackebridge & Co.	172
Brothers Paulinus.	168
Brown R. S. & Son.	171
Burrow J. G.	169
Caldwell Geo W.	170
Carmody J. D.	176
DeBullip Jos.	172
DeVeer J. A.	169
Dervine, Peter.	175
Diez, John L. & Co.	169
Dillon, J. L.	165
Dreier, H. A.	169
Ely Z De Forest.	169
Fassett, F. E. & Bro.	165
Faxon M. B.	169
Fisher Bros & Co.	168
Fisk Chas H.	165
Florida Supply Co.	176
Foster F. W. & Co.	174
Fulwiler P. C.	175
Garden Publishing Co.	173
Gardner Jno & Co.	170
Gardner Park Rose Co.	165
Grantman Mrs F. A.	169
Greene W W Son & Co.	171
Grimb, Jas.	174
Grubbs, N. S.	170
Hales, H. W.	168
Hallcock W. H. & Son.	169
Hammond, Benj.	168
Hammond & Hunter.	165
Hancock Geo.	167
Hantzsch Rudolph.	174
Hartland W. B.	169
Herendeen Alg. Co.	170
Herr, Albert M.	171
Hippard E.	175
Hitchings & Co.	176
Hooker, H. M.	174
Horan, Edw. C.	165
Hoyt R. D.	172
Hudson John M.	165
Hughes E. G.	172
Ives, J. H.	174
Johnson & Stokes.	165
Kennicut Bros.	169
King Jas.	169
Krauer N & Son.	168
Krick, W. C.	174
Laing John & Sons.	171

LITTLE ROCK, ARK.—There was a chrysanthemum show Nov. 8 and 9 at the State House for the benefit of the Orphan's Home. D. C. Brayton, of the firm of Smeeton, Coleman & Co., died Nov. 4.

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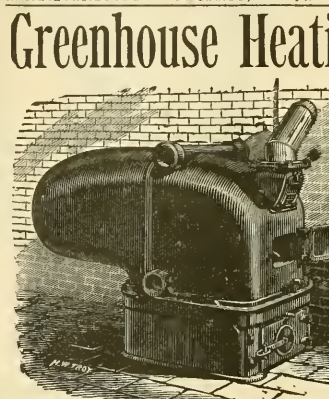
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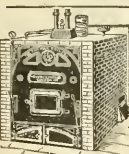
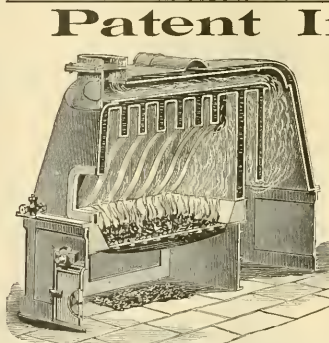
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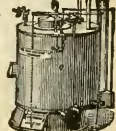
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Vol. V. CHICAGO AND NEW YORK, DECEMBER 1, 1889. No. 104.

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J. M. JORDAN, St. Louis, Mo., president; M. H. NORTON, Boston, Mass., vice president; WM. J. STEWART, 67 Bromfield St., Boston, Mass., secretary; M. A. HUNT, Terre Haute, Ind., treasurer. The sixth annual meeting at Boston, Mass., August, 19, 20, 21, 22, 1890.

CONTENTS.

Chrysanthemum show, Boston	177
" " Philadelphia	178
" " Orange, N. J.	179
" " New Bedford, Mass.	180
" " Hartford, Conn.	180
" " Worcester, Mass.	180
" " Baltimore	181
" " New Haven, Conn.	181
" " Springfield, Mass.	181
" " at other points	181
Fishing basket (illustration)	179
Edwin Lonsdale (with portrait)	181
Hardy perennials for forcing	182
Arboretum notes VIII.	182
Odontoglossum Pescatorei (with illustration)	183
Theory and practice	183
Rose Papa Gonlier	184
The rose grower's song	184
Rosa rugosa (with illustration)	184
Mealy bug on roses	184
Landscape gardening—a retrograde movement	184
Leaves of advice from a limb of the law	186
Catalogues received	187
An important legal decision	188
Competition	188
News notes	188
The seed trade	189
Horticultural education	189
New French chrysanthemums	192
Philadelphia	193
Nomenclature	194
Carnation cuttings	194
Boston notes	196
Tyurestinus	196
Use of the feet in seed sowing	193

IF YOU have anything to sell to florists, nurserymen or seedsmen, advertise it in the AMERICAN FLORIST and you will find a buyer if it is a salable article.

IF YOU have any trashy stuff you want to sell don't advertise it in the FLORIST, but if you have a good article and want to sell it at a fair price you can find buyers by advertising in these columns.

ADVERTISERS should bear in mind that the FLORIST is a strictly trade paper and that wholesale price lists may be published in its columns without fear that the wholesale rates there given will be seen by retail buyers. Subscriptions from those who are not in the trade are invariably refused by us. Among those in the trade we include employees of commercial florists and private gardeners who have charge of greenhouses.

Chrysanthemum Show.

Boston.

The chrysanthemum exhibition of 1889 was remarkable for the large number of meritorious seedlings shown and the superb collections of cut blooms which completely eclipsed anything of the kind ever seen here. This evidence of increasing interest on the part of our best growers, together with the large number of visitors at the show, plainly indicates that it will be a long time before this interest will diminish or any other flower usurp the place which the chrysanthemum now holds in public estimation. This is not the pleasantest prospect for the commercial rose growers, who have seen their fall trade all but ruined on account of the chrysanthemum's popularity, but there appears to be no prospect of immediate relief.

The undersigned had the pleasure of visiting two other prominent chrysanthemum shows this season, and while it must be admitted that the display of specimen plants at Boston suffered somewhat in comparison with those in other cities, yet the inferiority was in a large measure atoned for by the comparative absence of those infernal stakes which are used to such an unbearable extent by some exhibitors elsewhere. How any one pretending to have an eye for beauty can deliberately disfigure and utterly destroy the beauty of a well grown plant with a whole forest of painted or unpainted sticks and a tangle of grocer's white twine is beyond comprehension, and how any intelligent committee can award a valuable premium to such crazy contrivances is equally inconceivable.

It will be in order to remark also right here that it would tax ordinary human comprehension to try to understand what certain exhibitors from a distance with a reputation at stake were thinking of when they expressed to this show a lot of stuff with their name attached, of such inferior quality that a street fakir would not disgrace himself by offering it to his sidewalk trade. If such contributions are an evidence of our standing in outside estimation then Boston "culchaw" must have fallen away below par.

To return to the show, the best display of plants in the hall was the set of twelve shown by Jas. Comley, gardener to Mrs. F. B. Hayes. Those shown by E. W. Wood received second prize in this class and were also beautiful plants, being grown low and stocky and requiring very few stakes. The same good point was shown in the plants exhibited by Jos. Clark. Mr. Comley also deserves credit for a fine display of plants filling the whole stage, but not entered for any premium.

For collection of twenty named plants,

all classes, first prize was awarded to Walter Hunnewell, second to E. W. Wood. For six Chinese Dr. Walcott was first, and also first on six Japanese, being closely followed on the latter class by E. W. Wood.

Awards for specimen plants in the various classes were made to H. L. Higgs, H. P. Walcott, E. W. Wood, Dr. C. G. Weld, and others.

The schedule calling for six plants of Japanese varieties in not over 8-inch pots and limited to four blooms each, brought out two very beautiful sets of perfectly grown little specimens from Dr. C. G. Weld and Chas. J. Dawson. Particularly noticeable in Dr. Weld's exhibit were a grand plant of W. H. Lincoln, also Belle Hickey and Wm. M. Singler. Chas. J. Dawson is a son of Jackson Dawson, of the Arnold Arboretum, and this, his first attempt at exhibition, reflected great credit on him.

In the anemone flowered class, Mrs. Gane seems to be about the only variety shown for a prize in Boston and the regularity with which it has been presented for this honor every year begins to be somewhat monotonous.

In the display of cut flowers this year's exhibition is far ahead of anything ever seen here. Eleven large vases of specimen blooms grown by C. J. Power and exhibited by Galvin Bros., were incomparably good. The varieties included were Jardin des Plantes, Cullingfordii, Mrs. Wheeler, Mrs. Frank Thompson, Kioto, Mrs. Alpheus Hardy, W. H. Lincoln and Lillian B. Bird. The manner of exhibiting them was most effective, each variety being represented by about a dozen and a half blooms in a tall vase. The stems were from two to three feet tall and well furnished with luxuriant foliage. In size the blooms were also remarkable. A few of them were measured with the following results: Jardin des Plantes 13 inches in circumference, 4 inches deep; Cullingfordii, circumference 16 inches, depth 4½ inches; Mrs. C. H. Wheeler and Mrs. Frank Thompson 10 inches across; Kioto 16 inches in circumference. Some of the foliage measured 8 inches in length. This one exhibit was a show in itself.

Another most remarkable display of cut blooms was that made by Jas. Brydon, gardener to John Simpkins. Twenty-four such blooms it is safe to say were never before staged in this country. Their uniformity was as remarkable as their size. The following varieties were represented: Thos. Cartledge, Mrs. Fottler, Mrs. J. C. Price, Mrs. Carnegie, Lillian B. Bird, Christmas Eve, Robt. Crawford, Jr., Belle Paule, Mrs. C. H. Wheeler, Grandiflora, L. Canning, Gold, Minnie Palmer, Mrs. J. J. Bailey, Puritan, G. F. Moseman, Edwin Molyneux, Beauty of Kinsessing and Mrs. Frank Thompson.

The Special Premium, a piece of silver

plate, for 50 blooms, divided into 30 Japanese, 10 Chinese and 10 anemones, was won by E. Fewkes & Son, who made a superb display, barring, however, the ten anemones which cut a sorry figure alongside their mammoth companions, and which in the opinion of many should have been omitted from the schedule. The attempt to classify chrysanthemums as Japanese and Chinese is now only a prolific cause of dispute and it is the prevailing opinion among the growers that it should be abandoned.

The cut flowers shown by Kennett Findlayson, gardener to Dr. C. G. Weld, were noticeably good, among the best specimens being W. K. Harris and Nessima.

Among the novelties shown were Ada Spaulding, which was not seen to advantage and proved a decided disappointment, Louis Boehmer, the pink hairy variety shown by Peter Henderson, Sunyside and Mrs. De Witt Smith, from Pitcher & Manda, and Geo. Hollis' seedling of last year Mrs. Ben. Harrison.

John Simpkins exhibited three beautiful seedlings under number. One of these took the first prize for seedling and was named Sandyside. It is very full and large and resembles Mrs. Frank Thompson in color somewhat, being white with a delicate shade of pink on inside of the petal.

Mr. Fewkes showed a superb seedling, in color very near Robt. Crawford, Jr., but larger in flower than that popular variety.

Geo. Hollis exhibited a large number of seedlings, the best of which was Aureole, color straw, petals long and twisted, a full, handsome flower. Other seedlings staged by Mr. Hollis were as follows: Mrs. John S. Fogg, golden yellow, large flower; Jenny Fred, lilac, silver reverse, large; Roxbury, incurved, perfect ball, outside of petals golden russet, inside deep shade but not seen; Ruby Sphere, pale amaranth, tightly incurved in style of Newport; Witch, fawn red, open center, very fluffy flower; Ivoryne, pure white, full flower.

Pitcher & Manda showed a seedling named Bohemia, color brick red, a very full flower.

Exhibits of flowers other than chrysanthemums were few, being confined to a vase of Duchess of Albany rose, grown by Peter Ball for Galvin Bros.; some excellent carnations from R. T. Lombard and F. C. Fisher; orchids from Norton Bros. and the very rare *Cypripedium Maseerellianum*, a hybrid between *C. Spicerianum* and *C. insigne* Chantini, exhibited by Pitcher & Manda.

A singular sport was shown by F. C. Fisher, being a cluster of blooms from the Snowdon carnation, in which one of the flowers was of a beautiful pink resembling Grace Wilder, the other flowers being Snowdons in every respect.

Mr. Robt. Manning, secretary of the Mass. Hort. Society, in a contribution to the Boston *Transcript* gives the following interesting account of the development of the chrysanthemum exhibition: "Now that the chrysanthemum has become perhaps the most popular of all flowers, and, in some points at least, may be said to have reached perfection, it may be of interest to glance at the progress of its culture. The first plants brought to Europe from China were of the small flowering class now known as Pommpons, but they were soon lost, and were not reintroduced until 1846. The large flowering kinds were introduced in 1790. In 1820 there were only twelve varieties in Europe, but in 1865 there were six hun-

dred, and now they are numbered by thousands. The first record we have of their exhibition in this country was in 1830, when fifteen varieties were shown at the exhibitions of this society. The first prizes offered were in 1861 to the amount of only \$17. In 1868 the exhibition was first styled the "Chrysanthemum Show," and the prizes were increased to \$55. The exhibition this year was reported as an entire failure. These had all been "Saturday shows" from 12 to 3 o'clock, but in 1879 it was held on Wednesday from 12 M. to 10 P. M., with prizes to the amount of \$150. In 1882, though planned for only one day, it was so good and so much interest was shown in it that it was kept open two days, and this was continued until 1886, when three days were required, as have been since then. The prizes were gradually increased until 1887, when \$741 was appropriated. It will thus be seen that the expansion of the taste for chrysanthemums and their culture has been mainly within a few years."

WM. J. STEWART.

Philadelphia.

The Pennsylvania Hort. Society has never had such a grand exhibition before, and that means that it was the best chrysanthemum show ever held in the country. I have never seen so many good exhibits nor so few poor ones.

It is worth saying that the winning plants—for the \$100 premium—first and second, were 25 per cent better than when three years ago Robt. Craig put up that stunning twenty-five. Not only in these groups were improvements noticeable, but in all there was better foliage and larger and more perfect flowers.

The first premium was awarded to James Verner, gardener to A. J. Drexel, Esq., for 12 superb plants, the largest of which was nearly 6 feet and the smallest 4 feet 10 inches, the tallest plant was not more than 4 feet high including the pot, each plant had equally good flowers, the foliage was perfect and the group superb. There was a prim methodical contour carried just far enough not to be objectionable. It is possible to carry mechanics too far in plant training, exhibitors young and old should hang up the sign: Beware of mechanical devices in training plants.

The winners were Bride, W. H. Lincoln, Mrs. A. Blanc, Gold, Frank Wilcox, Miss Mary Wheeler, Mrs. Frank Thompson, Robert Crawford, Robert Bottomly, Puritan, Grandiflorum, Mrs. Irving Clarke. Of the 12, 8 were either raised or distributed in Philadelphia. There is always room to mend, and this collection would have been mended had it contained two or more dark colored varieties.

The second was awarded to Gordon Smirl, gardener to Wm. Slingerly, for a superb lot having more contrast in color, and the individual flowers on some specimens were superior to any in the first premium lot. The plants too were generally larger without any attempt at formal training, the foliage of all except a plant of Cullingfordii was perfect. This poor Cullingfordii took off just 11 points; a plant of Puritan lost 5 points from being out of condition, yet withal when the balance was struck the collection was only 5 points behind the first.

The 3d went to Wm. K. Harris for a fine collection, rather smaller and rather uneven when compared to the first and second, yet there was in this lot a plant of Mrs. Wm. Bowen, a magnified Mrs. Wheeler in habit, color and size, which

was admitted by all to be the finest plant in the exhibition. It was 5 feet 6 inches in diameter and nearly as high with 87 perfect flowers.

The other winners in this class were George Fowler, gardener to Joel J. Bailey, John McCleary, gardener to Wm. Wightman, and J. W. Colfesh.

The prizes in the other classes for chrysanthemums in pots were hotly and well contested, being divided in the amateur's class between Messrs. Verner, Smirl, F. R. Sykes, gardener to Mrs. H. Ingersoll, John McCleary, Thomas Monahan, gardener to Chas. Trotter, P. Conlin, gardener to Percival Roberts, and John M. Hughes, gardener to G. W. Childs. What interest is here shown by these gentlemen and their gardeners.

In the nurserymen and florists' divisions Messrs. Harris, Colfesh and Standen took the honors. In the open to all plant class Messrs. Verner, Smirl, Fowler, McCleary, Colfesh, Harris, Monahan, Conlin and Huster were successful.

The "Blanc Prize," a silver cup, was awarded to Messrs. Hugh Graham & Sons for "Harry Elkins Widener," a superb lemon yellow of most perfect shape, large, very double and of good habit. The "United States Prize," a silver cup, for Mrs. Alpheus Hardy, was awarded to H. G. Standen.

The cut flowers were as a rule better than last year, but it is very hard to get 100 varieties together in good condition, and with the exception of the first prizes they were below the average.

Mr. John Cullen was first for 50 blooms, 100 blooms, 25 blooms and 12 blooms, this last being a very fine and excellent selection. Messrs. Harris, McCleary, Fowler and Monahan were the other winners in this class. The displays of seedlings and new varieties far surpassed any previous exhibit. It is to be hoped that some of the varieties will not be perpetuated, however, as there were some that were poor and very poor, a minority being very good.

Silver medals were awarded to Thos. H. Spaulding for Ada Spaulding, to John Thorpe for Coronet, to Thos. Monahan for El Dorado, a superb yellow, to Wm. K. Harris for "Violet Rose," superb pink, John M. Hughes for Mrs. Lay, and to Peter Henderson for Louis Boehmer, a counterpart of Mrs. Hardy except that it is of a silvery pink color, this must prove a valuable acquisition for seed purposes.

T. H. Spaulding had bronze medal for "E. G. Hill," a fine golden yellow. Certificates of merit were given to John Thorpe for Mrs. A. Carnegie, to John M. Hughes for Lady Selkirk, a fine incurved Chinese, ivory white, to Messrs. Pitcher & Manda for "Ramona," a very distinct and fine yellow variety, globular in shape having narrow petals.

Of the other meritorious seedlings and the best of the new varieties with your permission I will reserve them for a future paper. I have notes of nearly all the kinds shown this season which I hope will be interesting.

The exhibition of designs was very very weak for Philadelphia. There was no Battle in it, but there was a fruit store and a wheelbarrow. The displays of roses and carnations were very good, and the prizes went to Messrs. Coles & Whitely, Craig & Bro., Pennock, Evans & Battles. The designs to Kift, H. Graham & sons, Pennock Bros.

The orchid display was of great interest, Messrs. Graham and Evans & Battles having excellent groups which called forth much praise.



FISHING BASKET. [SEE PAGE 183.]

Of the miscellaneous plants such as palms, ferns and foliage plants generally, Philadelphia has never had a better collection, indeed some of the palms and many of the ferns were master pieces of skillful cultivation, and then the competition was lively and close. The plants of *Pritchardia grandis*, *Livistona Hoo-gendorphi* and *L. Chinensis aurea* were gems in 12-inch pots. The larger specimens were *Areca Forsteriana*, *Livistona rotundifolia* and *chamærops*.

Of the ferns shown fine plants of *Cibotium regale*, *Davallia Fijitiensis plumosa* and choice *gleichenias* with immense specimens of *Maidenhairs* were shown by several exhibitors.

The ornamental foliage plants were effective and well grown, some fine species of *anthurium* such as *Varoqueanum* and *Veitchii*; the two velvet leaved plants *Cyanophyllum magnificum* and *Sphaeogynë latifolia* were admired by all. For 25 ornamental foliage plants in 10-inch pots, 1st Wm. Joyce, gardener to Mrs. Baldwin, 2d Robert Wark, gardener to Mr. C. Clark; 15 decorative plants, 1st and special to Wm. Joyce; specimen plant, 1st Wm. Lafferty, 2d Robert Wark; specimen croton, Robert Wark; 25 palms, in not larger than 10-inch pots, 1st and special to Thos. Long, gardener to A. J. Drexel; specimen palm, Wm. Joyce; 25 ferns in 25 varieties, 1st and special to Thos Long; lycopods and ferns, 1st Wm. Joyce; 6 marantas, 1st Hugh Graham & Sons, 2d Wm. Joyce; specimen maranta, 1st Wm. Joyce, 2d Robert Wark; spec-

imen *dracenas*, 1st Wm. Joyce, 2d Robert Wark.

Special premiums were awarded to Messrs. Dreer, Ball, Campbell and Heacock for beautiful collections of trade decorative plants, consisting of very useful sized palms, ferns, *dracenas*, *pandanus*, etc.

Messrs. H. A. Dreer and Jno. A. Gardiner had attractive displays of various bulbs, tools, mushroom spawn and other reasonable commodities tastefully and very effectively arranged.

The decorations of the hall were in good taste, though not quite as elaborate as last year. The only D. D. L. Farson had a very able lieutenant in Davie Bearn, the officers vying with each other to do more than their duty.

Mr. Wm. Bowen, through the D. D. L., presented Mr. W. K. Harris with a set of gold sleeve buttons in honor of Mr. Harris naming the fine *chrysanthemum* Mrs. W. Bowen. JOHN THORPE.

Orange, N. J.

The autumn show of the Orange Hort. Society is always one of the most interesting held in the vicinity of New York, and this year's exhibition was no exception to the general rule. Taken all round, this has been a discouraging season for *chrysanthemums*, especially trying to the richer colored ones, so the many good flowers seen were the more worthy of commendation.

The two "stars" of this show were

Peter Henderson's new hairy variety and Mr. Spaulding's beautiful seedling "Ada Spaulding." The first named is called "Louis Boehmer;" four of the singular blooms nestling in a gilt basket bedded with *adiantum* were the object of much attention. Its most striking peculiarity—the hairy character—is identical with Mrs. Alpheus Hardy, but the flower is larger, and evidently far more robust. The color is a sort of rosy lilac, not very bright. It looks like a strong grower, and is certainly a decided novelty. It received a certificate of merit.

"Ada Spaulding" is already familiar to many through its appearance at the Indianapolis show, where it received the Harrison Cup, being successful over seventeen competitors. It also received a certificate from the National Chrysanthemum Society. It is a large flower of the Chinese type, broad petaled and globular in shape. The center, as it first opens, is a pale sulphury tint, shading through white to a soft pink on the outer petals. It is a real pink, with very little of the lilac tinge seen in so many *chrysanthemums*—something of the *La France* tint. It is really a most beautiful flower, and its vigor of growth suggests that it will be a very useful variety. It received first prize for the best seedling of any section, and also received first for a design of *chrysanthemums* with ferns and foliage, which showed off its beauties to the utmost. The second prize for a new seedling of any section was awarded to Jno. Keane, gardener to Mrs. David Hoadly, Englewood, N. J., his flower being a very excellent seedling from *gloriosum*; color, primrose yellow, a very large, full flower, regarded as extremely promising.

The display did not seem quite so large as previous years, which may readily be accounted for; owing to the extraordinary season the earliest varieties were pretty well over, and there was difficulty in keeping perishable colors among later ones. There was only one plant of "Mrs. Alpheus Hardy" in the entire show, and the judges discreetly passed this over without any award, it was a decidedly melancholy and dejected specimen. This was a surprise, one expected to see any amount of this admired variety. There were very few blooms of it either; the prize for cut flowers of "Mrs. Hardy" was awarded to Jno. Keane, of Englewood, N. J. The writer was examining some cut blooms with a good deal of interest, struck by their more than usually downy aspect. They were large, fine flowers, and they seemed to have as fine a crop of hair as a Persian cat. Closer inspection showed that they had been packed, as flowers often are, in loose cotton wadding. Naturally, the downy wadding stuck to the hairy flowers, no one could remove it, so "Mrs. Hardy" indulged in a crop of false hair, though no one but a very close observer would be aware of it.

Another noticeable omission was the absence of "Mrs. Andrew Carnegie," but this variety appears to have suffered a great deal from the unfavorable season, both in color and size.

The cut blooms were, with few exceptions, very fine. Some of the varieties shown by J. H. Taylor, of Bay Side, were those introduced by Mr. Fewkes last year, and were very good, notably *Lillian B.* and *Kioto*. The disbudded plants showed the best flowers, naturally; the standards were, on the whole, better than the bush plants, which were apt to be rather too much stacked. One of the best plants noted among the latter was a

handsome bush of E. H. Fitler, the flowers were very large and showy.

T. H. Spaulding secured the largest number of prizes, 19 first and 3 second. Competition for the best six standards was very close, Mr. Spaulding coming in first, Mr. Barr second and Mr. Page third.

The awards were as follows: Plants in pots, 12 distinct varieties, T. H. Spaulding; 6 Chinese, T. H. Spaulding; 1 Japanese, T. H. Spaulding; 1 Pompon, T. H. Spaulding; 1 anemone flowered, T. H. Spaulding; 10 standards, 1st prize Jno. Farrell, gardener to Wm. Barr, Esq., 2d T. H. Spaulding; best pyramid of plants, Peter Hayes, gardener to H. A. Page, Esq.; 50 dwarf plants, 1st T. H. Spaulding, 2d Jno. Farrell. Both very good collections. One variety, naturally grown, (Society's special premium) H. Kindsgrab, gardener to Geo. Schapman, Esq.; 6 naturally grown plants, Society's silver medal (amateurs only), Jno. Farrell; 3 naturally grown plants, Society's bronze medal, Jno. Farrell.

Cut blooms, best collection of 50, 1st T. H. Spaulding, 2d Wm. Tricker, gardener to Judge Benedict, Staten Island, 3d Jno. Cullen, gardener to E. P. Wilbur, South Bethlehem, Pa.; 24 Japanese varieties, 1st H. Spaulding; 12 Japanese varieties, 1st Wm. Tricker, 2d T. H. Spaulding; 12 Chinese, T. H. Spaulding; 12 anemone flowered, T. H. Spaulding; 12 single flowered, 1st T. H. Spaulding, 2d Thos. Jones, Short Hills; 12 Pompons, T. H. Spaulding; best 12 seedlings of 1889, 1st T. H. Spaulding, 2d Thos. Jones, 3d United States Nurseries; best collection, T. H. Spaulding; best vase of chrysanthemums, 1st J. H. Taylor, Bay Side, L. I., 2d T. H. Spaulding; 24 distinct varieties, Society's gold medal (amateurs only), Wm. Tricker; 12 distinct varieties, Society's silver medal, Wm. Tricker; 6 distinct varieties, Society's bronze medal, Jno. Cullen.

There were some fine cut roses, of which awards were made as follows: The Bride, 1st Jno. N. May, 2d J. H. Taylor, 3d Patrick Hayes, gardener to H. A. Page; W. F. Bennett, Jno. N. May; Niphetos, 1st J. N. May, 2d J. H. Taylor; La France, J. N. May; Mermet, 1st J. N. May, 2d J. H. Taylor; Perle, 1st J. N. May, 2d J. H. Taylor, 3d Patrick Hayes; Gontier, 1st J. N. May, 2d J. H. Taylor; any new variety, J. N. May. The prize taker was Duchess of Albany—grand flowers.

Some good carnations were shown by Jno. McGowan, the prize for new variety being awarded to him for his seedling "Miss Lizzie McGowan." It is a fine white, a promising variety. Prize for violets was awarded to H. Kindsgrab, gardener to Geo. Schapman.

Prizes for greenhouse grapes were awarded to Patrick Hayes, gardener to H. A. Page. Collections of stove plants and chrysanthemums, not for competition, were shown by the United States Nurseries. Peter Henderson sent a few of his unnamed Japanese varieties of recent importation, among them was an exceedingly pretty fine-petaled sort that looked like a bunch of gold thread. Mr. Barr's naturally grown plants were really beautiful and reflected high credit on the grower.

Mr. Julius Roehrs, of Carlton Hill, N. J., showed his friends a few blooms from his new rose, as yet unnamed. It was found among Anna Alexieff, and is a large, round, smooth-petaled flower of a lively rose pink, with the fragrance of a Beauty. A very nice thing every one says.

The general arrangement was similar to that of previous years. Every one

appeared to be well satisfied with the show and its management, and it must be scored as another success for the Orange Floral-cultural Society.

EMILY LOUISE TAPLIN.

New Bedford, Mass.

The annual chrysanthemum show of the Gardeners' and Florists' Club held in City Hall the 13th, 14th and 15th of November, was the finest ever held in this section, and by far the most unique and successful held under the management of the club. The entries were numerous and the attendance large.

The largest exhibitor of cut flowers was a local florist, E. S. Haskell, among them being perfect specimens of Mrs. Alpheus Hardy, Mrs. G. F. Moseman, Lillian B. Bird, Mrs. C. H. Wheeler, Mrs. Thompson, etc. This exhibition numbered 150 varieties and was banked with palms and begonias for a background.

The next largest exhibitor was W. S. Brown, whose exhibit was worthy of praise, especially so were his specimens of La Triomphante, Wm. Robinson, R. Bottomly and Leopard; there were 70 different varieties in his collection.

Mr. J. Frank Kirk exhibited 40 varieties, among them being a seedling, greatly admired, resembling M. A. de Lean. A. B. Hathaway, Wm. S. Pierce, Geo. C. Bliss and David S. Snow also had fine exhibits.

Among the private exhibitors were the gardeners of Mrs. J. C. Delano, Wm. J. Roth, Horatio Hathaway, all showing flowers brought to perfection, and the first two named were awarded a special premium for Mrs. Alpheus Hardy, the judge being unable to decide which was the finest.

The collection of seedlings was exceptionally good. John F. Tynan, of this city, was awarded a special premium. The display of cut flowers in baskets was large and tasteful in arrangement. Mr. W. Haskell carried off the first premium in this class.

The center of the hall and ends were devoted to plants in pots; the writer noticed lovely specimens of Gloriosum, Domination, Wm. Robinson, R. Bottomly, Puritan, Phœbus, etc.

It would take too much of your space to tell all the exhibitors and all the premiums awarded. This letter would be incomplete, however, without a reference to the judge of the show and his exhibit. It was Mr. S. J. Colman, of South Framingham, Mass., who filled this position, and I think it must have been to the satisfaction of all. Certainly his own exhibit shown for "exhibition only," single flowers, sufficiently indicated his ability to raise most remarkably fine flowers; it included Mrs. Alpheus Hardy, Lillian B. Bird, W. H. Lincoln, Mrs. C. H. Wheeler, Kioto, and numerous others, one remarkable was Cullingfordii which would measure full 6 inches in diameter.

R. G. DEVOLL.

Hartford, Conn.

There were about twenty exhibitors at the chrysanthemum show of the Hartford County Hort. Society, and the display was as fine as ever seen in this city.

The stage of the hall was tastefully decorated with tropical plants behind which was stationed the orchestra. The largest exhibit of chrysanthemums was probably that of Geo. W. Atwood, which included about fifty varieties. B. E. Beemer, gardener to Senator Silas Robbins, of Wethersfield, had a handsome collection.

Following is the list of awards: Best collection, not less than 25 distinct varieties, and 50 plants, \$25, \$15 and \$10, 1st Barney E. Beemer, gardener to the Hon. Silas Robbins, Wethersfield; 2d John Coombs; 3d William May, gardener to Mrs. James Goodwin. Best 6 Japanese distinct named varieties, \$10, \$5, \$3, 1st James Smith, gardener to Newton Case; 2d C. H. Pember; 3d John O'Neill, gardener to Samuel L. Clemens. Best 6 Chinese distinct named varieties, \$10, \$5, \$3, 1st John O'Neill. Best single specimen Japanese, \$3, \$2, \$1, 1st James Smith, 2d C. H. Pember; 3d James Ralph, gardener to Frank S. Brown, Wethersfield. Best single specimen Chinese, \$3, \$2, \$1, 1st James Smith; 2d B. E. Beemer; 3d James Ralph. Best single specimen Pompon, \$3, \$2, \$1, 1st James Smith; 2d James Ralph; 3d C. H. Pember. Best 3 standards, \$10, \$5, \$3, 1st John Coombs; 2d B. E. Beemer; 3d C. H. Pember. Largest and best collection of cut flowers, not less than 50 distinct varieties, \$10, \$5, \$3, 1st C. H. Pember; 2d B. E. Beemer; 3d William May. Best collection of cut flowers, not less than 10 varieties, \$5, \$3, \$2, 1st C. H. Pember; 2d B. E. Beemer. Best single bloom, \$3, \$2, \$1, 1st C. H. Pember; 2d B. E. Beemer. The best seedling plant of 1889, \$3, \$2, \$1, 1st James Smith; 2d William May; 3d James Ralph; special diploma to Mrs. F. S. McLean, Bloomfield. Collection of palms and ferns, \$5 and \$3, 1st William May; 2d Robert Patchet.

Worcester, Mass.

The fourth chrysanthemum show of the Horticultural Society was the best yet given. The largest exhibitors were H. F. A. Lange, F. H. Wesson and the State Lunatic Hospital. The plants exhibited by the last named were the finest as a whole ever seen here.

Following is the list of prize winners: Best 6 Chinese or large flowered in pots, distinct named varieties, 1st \$6, State Lunatic Hospital; 2d \$5, F. H. Wesson; 3d \$4, Patrick Head. Best 6 Japanese in pots, distinct named varieties, 1st \$6, State Lunatic Hospital; 2d \$5, Joseph Brierly; 3d \$4, G. A. Lovell; 4th \$3, F. H. Wesson; 5th \$2, P. Head. Best 6 Pompons in pots, distinct named varieties, 1st \$6, State Lunatic Hospital; 2d \$5, F. H. Wesson. Best three plants in pots, from amateurs, distinct, not named, 1st \$3, Joseph Brierly; 2d \$2, G. A. Lovell; 3d \$1.50, Mrs. C. E. Brooks; 4th \$1, P. Head. Best display in pots, any variety, 1st \$3, State Lunatic Hospital; 2d \$6, H. F. A. Lange; 3d \$4, F. H. Wesson. Specimen plant, any variety, 1st \$4, State Lunatic Hospital; 2d \$3, G. A. Lovell; 3d \$2, H. B. Watts; 4th \$1, Jos. Brierly. 12 cut blooms of Japanese, named, with long stems and foliage, 1st \$4, A. H. Lange; 2d \$3, H. B. Watts; 3d \$2, G. A. Lovell. 6 cut blooms of Japanese, named, with long stems and foliage, in vases, 1st \$3, A. H. Lange; 2d \$2, Joseph Brierly; 3d \$1, G. A. Lovell. 6 cut blooms of Chinese, or large flowered, named, with long stems and foliage, in vases, 1st \$4, A. H. Lange; 2d \$3, H. B. Watts; 3d \$2, P. Head; 4th \$1, G. A. Lovell. 24 sprays Chinese or Japanese, named, not less than 12 varieties, in vases, 1st \$5, A. H. Lange; 2d \$4, H. B. Watts; 3d \$3, G. A. Lovell; 4th \$2, Mrs. C. E. Brooks. 24 sprays Pompons, named, not less than 12 varieties, in vases, 2d \$2, G. A. Lovell. Tall vase, all one color, long stems, with foliage, 1st \$3, A. H. Lange; 2d \$2, Mrs. J. M. Woodice; 3d \$1, Mrs. C. E. Brooks.

Baltimore.

The exhibits at the chrysanthemum show of the Maryland Hort. Society were not numerous, but the quality of the plants shown was good. Though the show was very beautiful and interesting it is feared that the society will be unable to give another one, as the treasury is empty and the membership has fallen from over 400 to less than 40.

The judges, Alexander Fraser, Charles G. Campbell and Dr. H. A. Brooks, made the following award of premiums: Best 12 distinct varieties large flowered or Chinese, John Donn 1st; best 6 varieties, John Donn 1st; best 12 Japanese varieties, John Donn 1st, James Galloway 2nd; best 6 varieties, John Donn 1st; specimen plant, large flowered or Chinese, Henry Bauer 1st, John Donn 2nd; for Japanese varieties, Capt. Wm. Fraser 1st, Wm. Fowler 2nd; 50 plants in pots, 25 varieties, John Donn 1st, James Pentland 2nd; 25 plants in pots, 13 varieties, John Donn 1st, James Galloway 2nd; 25 cut blooms, distinct varieties, Chinese, John Donn 1st, Wm. Fowler 2nd; 25 cut blooms, Japanese, John Donn 1st; display of cut blooms, John Donn 1st; Wm. Fowler 2nd; display of cut roses, Charles T. Bucher 1st; chrysanthemum design, Mrs. Christil 2nd; artistic arrangement of plants on stage, J. D. Pentland 2nd; group of palms, John Cook 1st.

An effort is being made to relay the foundations of the society on a broader basis and to rebuild it with a view to an enlarged field of usefulness, and it is to be hoped that the florists of the city will not fail to do their share. Some enthusiasm has already been developed in the matter which will it is hoped produce gratifying results. It will certainly be a lasting disgrace to the florists and amateurs of Baltimore if they permit this honored and long useful society to die from lack of support.

New Haven, Conn.

The third annual exhibit of the Chrysanthemum Club brought out a greater number of exhibitors than ever before, and the quality of the plants was said to be higher.

The list of awards is given below:

Six Japanese, 1st \$15, John H. Slocombe, 2d \$10, John Gallagher; six Chinese, 1st \$10, John Gallagher, 2d \$5, Archibald Veitch; four pompons, 1st \$8, John Gallagher, 2d \$4, A. Veitch; specimen Japanese, 1st \$6, John Gallagher, 2d \$3, H. R. Allen; specimen Chinese, 1st \$4, R. Veitch & Son, 2d \$2, W. J. Rowe; trained standard, 1st \$6, J. H. Slocombe, 2d \$3, same; seedling, 1st \$6, A. R. Hill, 2d \$3, H. R. Allen; five chrysanthemums not listed in club's catalogue of 1888, preference being given to newest varieties, 1st \$15, Archibald Veitch.

Springfield, Mass.

Owing to the unfavorable weather the attendance at the chrysanthemum show was not very heavy, but the exhibition was the largest and best ever held here.

The largest and finest exhibit of plants was that of Mr. Mieliez. The next largest was that of C. H. Denison. The United States Nurseries, Short Hills, N. J., and C. S. Power, South Framingham, Mass., exhibited fine specimen cut flowers.

Following is the list of awards: 12 plants, named varieties, Mieliez Horticultural Co. \$25, C. H. Denison 20, J. E. Taylor 12, Gurdon Bill 6; display of 6

plants, Mieliez Company \$12, C. H. Denison 10, J. E. Taylor 6; 3 plants, Mieliez Horticultural Co. \$8, C. H. Denison 5, Gurdon Bill 2 50, J. E. Taylor 1; single specimens, C. H. Denison \$7, Mieliez Horticultural Co. 5, Gurdon Bill 2 50, J. E. Taylor 1; specimen standards, C. H. Denison \$7; 3 standards, C. H. Denison \$12; single specimens, unlimited, Mieliez Horticultural Co. \$7, J. E. Taylor 5; 12 dwarfed plants, Mieliez Horticultural Co. \$10; collection of seedlings, R. H. Smith; cut blooms, Mieliez Horticultural Co. \$10, E. H. Howland \$3; 25 cut blooms of named varieties, Mieliez Horticultural Co. \$7; 12 cut blooms, Mieliez Horticultural Co. 6; single blooms, Mieliez Horticultural Co. \$2 50.

Roses, Mieliez Horticultural Co.; carnations, named varieties, E. H. Howland \$3, Dexter Snow 2; carnations, single blooms, E. H. Howland \$1, Dexter Snow 50c.



EDWIN LONSDALE.

EVANSVILLE, IND.—The chrysanthemum show was a grand success. The people turned out in force and the local press praised the exhibition highly. First premium for 25 plants, \$25, was awarded to the Floral Gem Greenhouse, 2d \$15, Wm. Blackman & Son; 1st for 5 standards \$10, Floral Gem Greenhouse, 2d \$5, Wm. Blackman & Son; for best plants any variety, \$5, Floral Gem Greenhouse. The Floral Gem Greenhouse also received specials of \$10 for six plants, six varieties, \$10 for picture frame of "mums," \$5 for best vase of chrysanthemums, \$5 for best three plants and \$10 for pyramid of chrysanthemums; Wm. Blackman & Son \$10 for stand of plants, silver cup for best table decoration, \$10 for standing cross of chrysanthemums, for plant display, \$10 for trade mark of chrysanthemums, \$10 for best T of chrysanthemums, \$5 for best bouquet; J. H. Wade & Co. \$25 for best trade mark of chrysanthemums, \$10 for novel design, \$10 for original design, \$5 for plaque; John Ellspermann \$10 for fan of chrysanthemums, \$5 for basket of cut flowers and chrysanthemum design. Much of the success of the show was due to the efforts of Mr. J. D. Carmody.

NEW BRITAIN, CONN.—The exhibition of chrysanthemums and other flowers by the Horticultural Society was a pronounced success. C. S. Mason of Framingham, made the largest single exhibit, having 150 plants, all good varieties. The best exhibit by an amateur was made by Clark Hine. Others who had fine

assortments were J. A. Trant, J. Thorniley, J. C. Blake, John Gerard, A. J. Sloper, Mrs. J. H. Minor, Miss Kate Stanley, Mr. James H. Shepard, Renben Mitchell, Samuel Bassett, Charles Andrew, Mrs. B. N. Comings, James Cochran, John B. Talcott, Mrs. Ira Porter, B. M. Hurlburt and Senator Robbins, of Vethersfield. A large number of cut flowers from the United States Nurseries, at Short Hills, N. J., attracted much attention and admiration.

WILMINGTON, DEL.—The first chrysanthemum show ever given in this city was held at Odd-Fellows' Hall, beginning November 14, under the auspices of Florists J. L. Brown & Co., L. E. Baylis, J. N. Lewis & Bro. and G. W. Brinton & Son. Over 500 plants were shown, many of them specimens and choice varieties. In addition to the exhibits made by the local florists named above, cut blooms were shown by Pitcher & Manda, Short Hills, N. J., and T. H. Spaulding, Orange, N. J.

CAMDEN, N. J.—At our first chrysanthemum show at least 150 varieties were shown and much interest was manifested by the public. C. W. Turnley was the sole competitor and of course received all the premiums. Mr. Turnley exhibited a number of seedlings which were much admired. The exhibition was repeated at Haddonfield, six miles distant, the following week, and a like interest was shown there.

DETROIT.—The chrysanthemum show given at the Detroit Rink by Florists J. Breitmeyer & Sons, Detroit Floral Co., S. Taplin, Holzgang & Noel and B. Schroeter was a very gratifying success. The exhibition achieved immediate popularity and the attendance was very large. No premiums were offered, it being merely a display by the florists above named.

NEWPORT, R. I.—Florist Brandt made a very excellent exhibition of chrysanthemums in Odd-Fellows' Hall. The collection included many of the choicest varieties of recent introduction.

MONTGOMERY, ALA.—November 12 was cut flower day at the exposition and a superb display of chrysanthemums was made by the local florists and amateurs.

HINSDALE, ILL.—At a chrysanthemum show given at one of the churches here some excellent plants were shown by Mrs. S. P. Gardner.

OUR REPORT of the Cincinnati chrysanthemum show not having arrived by time of closing for this number, will be published in next issue.

Edwin Lonsdale.

We present herewith a portrait of Mr. Edwin Lonsdale, the second secretary of the Society of American Florists, and a frequent contributor to the columns of the FLORIST.

Mr. Lonsdale has a large and well appointed rose growing establishment at Chestnut Hill, near Philadelphia, and a more genial gentleman is not often met, even among the members of the craft in the Quaker city. He has been a member of the Society of American Florists since its organization and a contributor to the columns of the FLORIST since its birth.

In deference to Mr. Lonsdale's modesty we shall say nothing as to the prominent part he has taken in building up the S. A. F. to its present high position.

Hardy Perennials for Forcing.

BY WM. FALCONER.

There are two points to consider, first, what kinds are worth forcing; second, which among these kinds are adapted for forcing.

Most every hardy herbaceous perennial of moderate growth can be grown in the greenhouse and forced into flower earlier than it would bloom naturally out of doors. But I don't believe it would pay the cut flower florist to force columbines, veronicas, or other flowers that are not individually large and showy and capable of good use as cut flowers, and they must also travel well.

Some good flowers for forcing are tree and herbaceous pæonias, white foxgloves, white and rose Canterbury Bells, double pinks, early yellow hemerocallis, hardy cypripediums, white trillium, some lilies, pyrethrums, Newman's rudbeckia, and the like. Among the hardy plants that are already extensively forced every where may be mentioned *Astilbe* (*Spiræa*) *Japonica*, tulips, daffodils, poet's and other species of narcissus, and lily of the valley.

In order to get good satisfaction in forcing hardy perennials we should have good varieties to begin with, and good, strong, well rooted, compactly built plants that made a good growth early in the season, and that were lifted and potted early so as to get them well rooted and established before cold weather set in, and then well rested. And in forcing them we should bring them in gradually and not with a rush; just use the same rational care with them that we do with roses or other regular crops. When grown and forced in pots they are easily handled and we can bring them in as we please and humor them as we think may suit them best, and I would strongly advise beginners with this class of plants to try them in this way first, and until they have found out by experience just how to handle them. But to force these plants on a large scale we have got to ignore potting and take to bench planting with many of them. But here too the preparatory care is much the same—good, vigorous, stocky, mature plants, early ripened and well rested, and which had their roots cut around in fall so as to insure good lifting in winter and little check in starting and blooming. By growing them all close together or lifting them early in fall and heeling them in close together and then covering them deeply with dry oak leaves before winter sets in, we can get at them to lift them and bench them any time we please during winter.

Herbaceous pæonias have large tuberos roots like rhubarb, and are mostly too big for pots; I plant them in old nail kegs, which I get at the grocery stores for nothing. The old early double "scarlet" is the best early, but many of the others only a week or ten days later are splendid. Albiflora, although single, is very effective. Tenuifolia, both single and double, would stand at the head of this class were they plentiful enough, but they are not, and the clumps are usually quite small.

Tree pæonias are better than the herbaceous group and come in earlier, but their expensiveness is a serious drawback to their use. But by growing them permanently in pots, forcing them in winter and plunging them outside along with our poinsettias and stevias in summer we can partially surmount this difficulty.

White foxgloves either as plants in

bloom or cut spikes are mighty nice things to have at Easter, and we can have them then with very little trouble. Rather young plants may not bloom, so be careful to use mature stocky plants and lift and pot them early. Always pot foxgloves. Before winter sets in shorten in the leaves a good deal for handiness in packing close together and as a precaution against rotting off.

Canterbury Bells. I prefer the calycantha type and New Rose, Mauve Queen and pure white varieties; there is a good deal of trash among ordinary blues. For forcing they should be sown in spring and grown into stout stocky plants during summer, and lifted and potted early in fall and wintered in a cold frame well protected from hard frost, for they are not very hardy. For blooming in May and June out of doors I always raise my plants from seed sown about midsummer; if sown in spring the plants would be so large and leafy they would be apt to rot off in winter, but this is rather late for plants for forcing.

Double pinks of many kinds and colors. Grown outside into stocky plants, lifted and potted early in fall so as to get well rooted before frosty weather sets in, and plunged pretty close together in a cold frame, there to await our convenience in bringing them indoors. They blossom lavishly, and are very welcome indeed when our winter carnations are about exhausted. And here I would say a word for the summer blooming garden carnations. You know we have no real good yellow among the monthlies, but we have among the "annuals," and we have also dark crimson and many delicately tinted, flaked and frilled varieties. Now we can treat these exactly as we would the double cushion pinks, and I believe you will enjoy the result. You can get up a good stock from seed, and when the seedlings bloom with you discard all the singles and poor doubles and poor colors and hold on to and propagate the choice kinds.

Yellow day lilies (*Hemerocallis*). The two to grow are *H. flava*, the early yellow, and *H. Dumortieri*, the early orange yellow. Naturally these two are in their finest bloom during the first fortnight of June; now mark you *H. graminifolia*, another splendid yellow and common species, does not bloom till July, and any person not acquainted with them might not think there was any difference between them, but there is—from five to six weeks' time in blooming. So be sure you get the early ones. Both are easily raised from seed or division. *Flava* is the ranker grower of the two. Lift in fall and plant them in nail kegs for their roots are large. In forcing the leaves of *flava* will grow rather rank, but shorten them in as you would those of *Ornithogalum Arabicum*, this won't hurt the blooming. And after flowering and spring comes in empty out the plants, divide and plant them out again and wait till the following year before you force them again. Always keep a double set of them.

Hardy cypripediums. They are splendid. Spectabile is the best of all, then come pubescens and parviflorum. Acaule forces well for a year and is showy, but not much for cut flowers, and our other eastern species are not showy enough. And an excellent quality in these cypripediums is that we can force the same plants year after year without injuring them in the least, but, on the contrary, if we treat them kindly they will annually increase and get stronger. Plant the clumps close together and unbroken in

shallow boxes with leafy or peaty soil and chopped sphagnum, and after forcing them take good care of them till fine weather sets in, when they can be placed in a partially shady place out of doors, but they have got to get water all summer long. I have a good many boxes of them that have been forced year after year for several years and they are stronger now than ever they were. At present they are in an open cold frame along with lily of the valley and other hardy plants prepared for forcing and with a 3-inch deep layer of rough leaf-mould over them, and they will remain in this way under frost and snow till needed for forcing. But plants in pots are never exposed in this way as the frost would burst the pots.

White trilliums (*T. grandiflorum*). One of the prettiest and showiest of our early blooming wild plants. I grow a lot of it for forcing and treat it exactly as I do cypripediums. And with the same treatment it blooms two weeks earlier than do the yellow cypripediums, and fully three weeks earlier than does *C. spectabile*.

Lilies. All species of lilies flourish as pot plants, and many are fully as reliable in pots as they are in the open ground. Apart from the candidum, longiflorum, speciosum and auratum lilies so largely grown in pots, I would urge you to try tenuifolium. It is a gem, small but brilliant, extremely early, easily grown and easily flowered. The best way to get up a good stock of it is from seed. Seeds germinate in ten to fourteen days after sowing, and most of the two year old bulbs will bloom.

Pyrethrums, both double and single, but I presume the doubles will receive most favor. In the open air these come into bloom late in May and last in splendid condition well through June. The double white is a prettier flower than a double China aster and we can have it in quantity from February on when we can not possibly have asters. Have two sets and force them in alternate years. The larger and stronger the clumps are grown in summer the better flowers they will produce in winter. Don't pot them, merely lift the clumps undisturbed and plant on benches.

Newman's rudbeckia (*R. speciosa*). The best of its race. Raise it from seed or division and grow it into big strong tufts. Let them have a long, cold rest. The bright yellow flowers and dark cone centers are very striking and contribute a scarce color among winter flowers. Don't start it very early.

Arboretum Notes.

VIII.

There are still a few bits of bright color left here and there among the groups and beds of shrubbery, although November winds have been whistling through the branches for a week. The long rows of conifers in all shades of living green, the clumps of heaths, with their soft neutral tints in green and brown and grey, the "brooms" with their mazes of bright green stems, all these and many others of the indispensable "evergreen" class are and will be all through the dreary winter months things of beauty, but besides these it is surprising to note how many showy and effective things there still are left in the deciduous class. For instance, take *Berberis Thunbergii*, which Mr. Dawson says he thinks has before it the greatest future commercially of any known shrub.

A bed filled with little two year old plants of this looks like a sheet of flame,



ODONTOGLOSSUM PESCATOREI.

so brilliant are the autumn tints on its foliage. The brightest bed of coleus and achyranthus ever seen could not compare with it, and this at a time when coleuses have been out of the question for six weeks. Then the older plants of Thunbergii with their abundant racemes of bright red fruit are equally effective and will continue so long after the foliage has gone. This subject of autumn and winter effects in landscaping has not received the attention it should. Even the color of the wood, or bark, may be made to play an important part. The brilliant vermillion bark of *Cornus Sibericus*, the rich green stems of the cytises, and the odd nutmeg-like white and brown ribbed boughs of *Acer Pennsylvania*, these and other equally effective things all suggest possibilities of artistic combinations in this line.

A most beautiful sight at the present time, one worth going a long distance to see, is a clump of *Spiraea Thunbergii* about eight or ten feet across. Its beautiful delicate foliage shows every tint of red, yellow and pale green, with its little white flowers thickly dotted all through like stars, while from a distance the whole clump appears like a brilliant sunset cloud.

The different varieties of *Calluna vulgaris* form pretty mats of dark bronzy green. One magnificent plant of the "Tewksbury Heath" (so called from having been first found at Tewksbury, Mass., by Mr. Dawson in 1861), is about six feet across, perfectly regular in form and very richly colored.

Lyceum chinensis, previously noted in these sketches, is still a beautiful object.

It holds the foliage well, and the long trailing racemes of bright scarlet fruit remain in perfection till midwinter.

Another very effective fruiting shrub is *Symphoricarpos vulgaris*. This is fairly loaded with fruit. The berries are in bunches much resembling mulberries, and are crowded thickly along the under side of the stems. They are of a rich dark red color.

No shrub in flower can exceed in beauty and brilliancy the different varieties of euonymus in fruit with their abundance of pendent clusters of scarlet berries with capsules red or rosy pink. A variety of *E. Europæus* with scarlet berries and white capsules, known as *frutico-albo*, makes a very fine contrast with the red fruited varieties. Among other unseasonable indications of the mild weather are *forsythias* and *andromedas* in bloom.

WM. J. STEWART.

Boston, Nov. 7, 1889.

Odontoglossum Pescatorei.

The illustration represents a group of *Odontoglossum Pescatorei* from the greenhouses of Mr. Gilmore at North Easton, Mass., Thos. Greaves gardener.

No more effective and beautiful orchid can be grown and shown than the above *odontoglossum*.

Where large quantities are grown they can be had all the year round, although the general flowering time is through the winter and spring months. Nothing can excel the beauty of a bridal bouquet of *O. Alexandree* and *Pescatorei*, the elegant wreath-like sprays are unequalled in

purity and effectiveness. In fact all of this section are good and they can be grown in this country readily at a temperature of from 50° to 60° in winter, keeping them in summer as cool and moist as possible. X.

Fishing Basket.

This basket is particularly adapted to send to a gentleman, should he be fond of fishing it is useful, and in any case it could be used for a wall pocket when the flowers fade, as the shape is very graceful.

This one was filled with *La France*, *Puritans*, *Niphetos* and *Meteors*. The ribbon which represents the straps adds to the effect by being carelessly thrown over the flowers.

We have filled a number of these baskets with solid colors, to the great satisfaction of our customers. II. H. B.

Theory and Practice.

I find that florists and farmers are a good deal alike in their scoffing at what is called "book farming" or "theorists." While there are to be found many florists whose intelligence would shed lustre upon any calling; there are others who, by their loose disregard of their profession, show that they are laggard in the acquisition of real knowledge so essential to men of their profession. When ever there is an attempt to teach them anything new the effort is met with the old stereotyped question regarding the relative merits of theoretical and practical florists, or the comparative value of theory and practice. The practical men, who have no theoretical knowledge, scoff at the theorists, and the latter sneer at the former.

It requires very little experience on the one hand, and not much study on the other to show that each are equally important, only in different ways. Both sides should know that "theory and practice make perfect." Theory together with practical experience will, without doubt, enable men to excel in whatever work they may undertake. Therefore, it should be the highest ambition of florists and others to combine theory with practice and prove the one by the other.

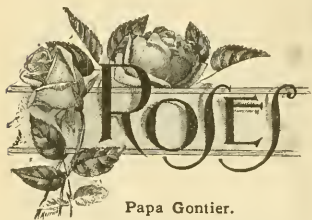
This object may be effected by devoting a portion of their leisure time to study, and by pursuing a systematic course of self culture. The man whose early training has been neglected need have no cause of despondency, because the extra exertion and effort required to educate himself will confer advantages of their own. Of course there are men in this, as in all other callings, who will fail however much they may try to educate themselves. This arises from the fact that though morally all men may be equal, intellectually they never can be so. Consequently the ability of men to educate themselves varies in proportion to the amount of natural intelligence they possess. But in any case study gives quickness of appreciation, enables men to profit by the recorded experience of others, develops a power of concentration, enforces exactness and accuracy, and if properly directed teaches men to classify facts, make proper deductions and reason logically. The knowledge acquired from books is of inestimable value, for without it he is not only almost sure to be narrow minded, but also very slow to receive new ideas or to estimate the value of old ones.

Such persons are very apt to become intolerant of other people's opinions, to assume that all knowledge begins and ends with themselves, or with what they

have learned, and to over-estimate their ability. They are very apt to be self-conceited, a quality which too many in every calling possess, mistaking it for an independent spirit. One of the commonest excuses for ignorance is the stereotyped expression "I am too old to learn." This, if made in sincerity, is a great mistake, as it is a false pride which neglects an opportunity to learn because it comes late in life, and it is a false fear which shrinks from an effort on account of its difficulty.

One fact very important to be considered in this connection is that knowledge throws light upon itself; and it is the first step only that must be taken gropingly, as it were in the dark, as the bugbear in such cases, like shadows, vanish the moment they are boldly approached, and will be found to be mere shadows after all. Truths are, in the main, simple and easy to be understood, and are daily being brought more within the grasp of the ordinary comprehension by means of good books and papers, which may be had at a trifling cost.

ALFRED B. COPELAND.
Springfield, Mass.



Mr. A. E. Whittle says in the last FLORIST that to retain the leaves on this variety they should be held dry as long as possible and then have a good soaking of water. This mode of treatment may suit some particular soils, but certainly not all, and is therefore somewhat misleading. Here we find to retain the leaves on this variety it is necessary to keep the soil in a nice moist condition (not saturated) all the time, and where a plant or plants by any chance gets a little on the dry side the leaves begin dropping immediately, and many other growers in this section have found the same trouble.

But the right conditions for watering plants, particularly roses, is considerably varied in different soils. There is no rule of thumb, or in other words set of rules, for watering which is applicable to all cases, for while the general principal is the same in all cases the actual requirements of each class of soil etc. can only be learned by carefully watching its effects under all circumstances. A plant that is growing freely should never be allowed to suffer for want of water is an undisputed fact well known to every cultivator. Now the condition as to dryness of the soil when the plants are liable to receive even the slightest check varies considerably; in a light sandy soil it would be much quicker than in a moist retentive clayey one.

As a general rule the tea rose should have the soil at its roots while growing kept in a healthy condition, never be allowed to get dry enough to show brown on the surface, or become so moist that it will pack like brick clay when squeezed in the hand. In most soils the best guide to know when a plant wants water is when the soil feels solid to the pressure of the finger (not waiting till it becomes hard), and herein lies one of the greatest

advantages of shallow benches. The soil hardly ever, where reasonable care is exercised, becomes too wet, on the contrary, except in very dull weather, it will take a light syringing nearly every day. In other words the soil can be kept in a nice healthy growing condition without getting too dry or becoming too wet, and the light frequent syringings are beneficial also in keeping down insects, etc., thus a double advantage is secured.

JOHN N. MAY.

The Rose Grower's Song.

I'll sing you a song of the glad days to goom,
When our peesiness will boom as of yore;
When the voice of gresanthemum cranks will
be dumb,
Und gresanthemums plossom no more.
Once again we'll the hill of prosperity glimb,
Und regain the broad station we held in our
brime;
We patiently wait for dot plessed time
When gresanthemums plossom no more.

The retailers' clerks will be outd on the hunt
Nt orters for roses galore;
Garantions will once again goom to the front
When gresanthemums plossom no more.
Mit our Mermetts and Chacks and our Hyprids
so nice,
From the public goot greenbacks und cash will
endice,
Our stuff will be sold for the old fashioned brice
Wheu gresanthemums plossom no more.

Wholesaleers vill den haf to hustle about,
Shtrcet fakirs vill pe only a bore,
They'll goom to our derms or shtep down und
oudt
Wheu gresanthemums plossom no more.
At autumn's approach how the beddlers will
hump,
At the very first frost how the brices will chump,
Our hearts vill pe light und our bocket pooks
blump
Wheu gresanthemums plossom no more.

We've hat all ve vant of dem Chapauese drash,
Dis Mikado und Mandarin lore;
Dere'll soon pe an end of deir headenishness
Wheu gresanthemums plossom no more.
Of incurved und reflexed, quilled, drooping und
shtraight,
Semi-couple und hairy dey'll soon cease to brate,
Dey'll find in opivion der vell deserved fate
Wheu gresanthemums plossom no more.

NO MUM.

Rosa Rugosa.

This rose is not handsome in the same way as a Mermet or Jacq is handsome, but as a shrub. Its foliage is the finest of any rose in cultivation; its habit dense but vigorous, and it is very hardy, early and free blooming and fragrant. Last spring it began blooming May 13, and the first Jacq roses were not in bloom till May 29. Otherwise Rosa alpina var. glandulosa is our earliest rose; some years it is ahead, and at other times rugosa is ahead. As the rose bugs do not come around till about June 1, with rugosa we have at least ten days good bloom unmolested, but with the hybrid roses the bugs take them from their first appearance. Although rugosa bears an immense crop of flowers in early summer it also continues to bear a few all summer long. And in fall its large red hips which are borne in quantity add much to its attraction. The white flowering variety (R. rugosa alba) is in every respect as good, hardy and free blooming as is the typical red flowering form and is one of the loveliest shrubs in cultivation. There is an idea that it doesn't set hips here, but this is erroneous; our plants of alba always bear fruit, and I have a lot of seedlings raised from our own saved seed. One great advantage of this rose is that it thrives and flowers splendidly in hot, dry, sandy ground, and as it forms such a solid bush it shades the ground for itself. It is a great favorite with landscape gardeners, and the supply of it does not equal the demand. W. F.

Mealy Bug on Roses.

This insect is not often very troublesome on roses, but where it is troublesome, a solution of one gill of kerosene to one gallon of water, well stirred, and syringed over all the parts affected, will destroy them, and if done very early in the morning and the plants syringed with clean water two hours after, no harm will result to the plants from its use.

J. N. M.

Landscape Gardening—A Retrograde Movement.

"Things are not what they seem." In this, the closing sentence of Mr. McMillan's admirably written, but I believe on many points totally erroneous paper on "Landscape Gardening," we have the key to his thoughts. He is the type of that familiar figure, which in all ages and on all questions is found arrayed against whatever may be the prevailing tendencies of the age they live in, perpetually dissenting from popularly accepted beliefs, constantly looking backward and fuding in the past superiority to the present, obstinately asserting that their views are right, although the whole world may differ from them, akin to the jurymen, who denounced his fellows as "eleven of the most obstinate men he ever saw in his life," because forsooth they did not see things as he saw them. Such men compel our admiration by so boldly upholding what they feel is right, and are formidable antagonists, being usually armed at all points with apt quotation, keen satire and ancient humor in support of their theories. That such men leave the impress of their ideas with considerable benefit to the issues they attack is undoubtedly true, but unfortunately their enthusiasm blinds them to what is patent to almost every one but themselves, and while they labor to discover a Scylla in the path of others would wreck us on a Charybdis of their own creation.

An evidence of this is shown in Mr. McMillan's attack on variegation in foliage. Green in its various shades he sets up as the only type of the beautiful in leaf coloring. He might just as reasonably condemn the beautiful plumage of the birds and advocate the brown of the sparrow, the black of the raven, or the white of the swan, as the only colors to be tolerated and so dispense with the attractive yellow of the canary, the gorgeousness of the parrot and the exquisite shades of the peacock. He might perhaps with equal force assert that the only beauty seen in the sky lies in a never ending blue, yet millions discern grandeur in its varying moods whether it be the black and leaden grey of its storm-tossed clouds, the bright tinted rays which herald the newborn day and the glowing splendor which so frequently marks its departure. Multitudes admire the rainbow, and he must be bold indeed, who would question its beauty, or suggest changes which would affect its brilliant tints. 'Tis said with truth "that every eye forms its own beauty," but some people, alas, are color blind, and to these we would extend our sympathy while we pity their misfortune.

The mirror has been held up to nature by the brush of the artist and the chisel of the sculptor, why then debar the gardener from attempting with living plants that which genius has accomplished with dull pigments and senseless stone? True, some of his attempts may have been so ludicrous as to inspire the masterly tirade directed against them by



ROSA RUGOSA.

Mr. McMillan—yet even here there is a wide difference of opinion, but his art, for art it is unquestionably—is comparatively in its infancy, and we are certain of far better things. From the rude figures and crude paintings which mark the dawn of art to the Venus de Medici and the Transfiguration of Raphael, is a long step, and while it may be impossible with the materials at his command for the gardener to reach the perfection of the artist, yet by earnest endeavor he can

attain such excellence that he will be in a position to ignore the censure of the hypercritical few whose only argument seems to be founded on moss-grown precedent. He will be certain to win approbation from the multitudes who will flock to see his work on nature's broad fields and under her own canopy. Millions will derive pleasure and benefit from his efforts, who would otherwise be deprived of them, and who luckily have never had the opportunities of his critics

to acquire stilted ideas of the "eternal fitness of things."

To the mysterious process manifested in "sports" by which nature occasionally develops new varieties, we are indebted for many of our standard varieties of "foliage" and flowering plants as well as some vegetables, yet Mr. McMillan's ideas if carried out would result in their entire extinction. His assertion that these can not be reproduced from seed is subject to qualification. The White

Plume and "Golden Self-Blauching" Celeries are "sports," yet they come true from seed. The golden geraniums are "sports," yet they have produced their kind from seed. A marked instance of this occurred in Flatbush, L. I., a few years ago. One of our well known florists sowed some seed saved from Mrs. Pollock and others of that type, which at first were green and were planted out for zonals. In the fall, however, they began to throw out shoots with such superior variegation to the seed-bearing plants that he realized a snug sum from the sale of them. Again in coleus we have numerous examples of the same kind. If a "sport" is propagated and allowed to seed, its progeny will show unmistakable traces of the parent. These instances are sufficient to prove that nature does not disown all her "freaks." He rails against variegation in foliage in general, yet there are few who fail to see beauty in the purple beech, the Japan maples, crotons, fancy caladiums, etc., even though they are "jaundiced with yellow, livid with purple," and in addition are blotched with crimson, pink and other shades. It must be a distorted vision which fails to recognize the beauty of these, or the grand effect of autumn's coloring on the *Ampelopsis Veitchii* in particular, as well as some of our shade trees.

Ridicule is the most effective of all weapons in able hands, and Mr. McMillan makes liberal use of it in handling this subject. It rarely is sound argument, however, and usually becomes a boomerang to those who use it. If the park where he is the presiding genius was to be the accepted model for all others, its acres of dreary monotony would be a sorry exchange for the foliage and carpet beds, which are such an attractive feature in the most of our parks and large private grounds. The principal object in decorating a park or grounds of any description should be to make them as attractive as possible at all times, and nothing does this more effectively than "foliage" plants for the reason that they present a good appearance from the time they are set out until frost, as the summer storms which play such havoc with flowering plants leaves them unscathed. The vast majority of the people who visit the parks are not there constantly and so can not watch the individual plants unfold their beauty. Follow the people to any place where bedding is done well and see where they linger longest. Is it in front of the hardy border, or before some fine specimen of oak or other trees? Will they find greater attraction in a single shrub or in a mass of them? It matters little in what form the beds are arranged—even the phantasmagoria of Mr. McMillan would do, provided it was well done.

The principal thing desired is to make our parks so attractive that the people will be induced to visit them often; that attained, their mission is accomplished. That this can be done better by using "foliage" plants in well executed designs as an adjunct to trees and shrubbery is already proven. Why then seek to change our present system and revive obsolete modes? Far better seek to improve the living present than waste our energies discussing the dead past.

"The shaft at random often sent
Finds mark the archer little meant."

These lines are to my mind peculiarly applicable in this connection. That Mr. McMillan's ideas if carried to their natural conclusion would result in the sweep-

ing away of the entire race of bedding "foliage" plants few can deny, and I very much question if this issue of his teachings is the one desired by him. I would rather believe that their loss would be as deeply deplored by him as many of their most ardent admirers, yet surely he can not fail to perceive that this would be the outcome of his opinions if they were widely accepted. To show how disastrous to the trade unthinking words may prove it is only necessary to recall the reason of the decline of cut flower designs for funeral purposes. Exaggeration and bad taste had brought them somewhat into disuse, but Dame Fashion's first decided frown against the practice took place some fifteen years ago when the most noted of New York's millionaires was about to begin the journey from whence no traveler returns. In arranging for his funeral he had breath left to say, "No flowers." He had accumulated one hundred millions and in doing so had little time to see the flowers by the wayside, so did not want when dead what he could not appreciate while living. His fiat went forth, backed by his millions, and fashion's slaves went down on their knees and obeyed. Thus for years after to nearly every funeral notice from the bereaved in upper tenfold was appended the stereotyped "Please omit flowers," which quickly spread to all classes in servile imitation of the departed Croesus. In this manner was a whimsical fancy gratified which almost destroyed a beautiful custom, while it entailed incalculable loss to the florists of the country.

In like manner have men in numerous instances "bumbled better, or worse, than they knew," and unthinking people might construe Mr. McMillan's sweeping condemnation of ornamental "foliated" bedding into an order to discard the entire class of these most useful plants, which coming from such a source would have considerable weight. That he would do this in pure wantonness of spirit, those who know him best very much question, and that he would want to be the indirect cause of what might prove to be an irreparable injury to many in the trade, those who know and admire his genial, chivalric nature feel certain that such a consummation was not his intention. We are all human and liable to err, and I trust I have not argued in vain in my honest endeavor to point out to him what I believe to be some of his errors. His frank confession that he might perhaps see things in their wrong light, emboldened me to attempt pointing out to him what I thought was wrong, and I rely on his manly nature to acknowledge such if he sees them in this light.

OBSERVER.

Leaves of Advice From a Limb of the Law.

(For Young Florists.)

X.

Yes, I was present at your chrysanthemum show. It was really a very fine exhibition and you deserve a great credit, for undoubtedly such an enterprise can only be made successful by good judgment, great application and unwearied attention to detail.

I suppose of course you cleared a nice little sum by this exhibition. Five hundred dollars hey? Well, well, that's really a brilliant success.

What's that, fear you have lost it already? Impossible! Let me hear the particulars. Felt so good did you that you went on Slump's note for that amount? Of all men on this bank and

shore of time Slump is the one man upon whose note I would be slow to set my name.

Oh, you have good collateral security have you? That's quite another matter. How's that? Not delivered yet? You don't mean to say you went on the note before receiving the security?

Have his most sacred promise have you? There is nothing less sacred in Slump's eyes than his word. He proves this himself, hence his proneness to give his profane word when you refuse his sacred word.

Know, O trusting mortal, that a mere verbal promise to deliver stock, bonds or other personal property as collateral security can not be enforced. The delivery of the "collateral" must take place at the time of entering into the contract, it is part and parcel of the contract and you might as well deliver a deed and take a man's word for the consideration as to go on a note because a man promises to give you some good collateral. Ask yourself what the meaning of the term is. It signifies side by side and in addition.

The very essence of such a contract of endorsement is simultaneous delivery of the "side piece." You have often heard me say that when a contract is in writing (and an endorsement is a written contract) the law supposes that everything connected with that contract should appear in the writing; not necessarily in the same instrument, but in some instrument bearing even date and referring to the note so that both may be construed together.

Pretty generally when a man talks about "collateral" he means stocks, bonds, bills of lading, warehouse receipts etc.; that is some paper evidence of value. But of course any kind of property may serve as collateral.

You may borrow a thousand dollars and hand the lender a deed of your house taking back a proper declaration from him. Or, you may pull your watch out of your pocket and hand it to him, or your diamond ring or watch chain. Anything that has value will serve the purpose.

You must not confound the transfer of property as collateral with the contract called "pledge." In the latter case, the pledge simply secures a right to sell the property on default. But he must sell it according to the manner presented by law, or he will not free himself from obligation to the owner. Quite otherwise is it with collateral.

Here the lender holds an absolute transfer in blank. The moment the borrower makes default the collateral may be sold. True, there must be a formal notice, but it is generally waived. No judicial process is necessary.

Yes, such a course is summary, but in no other way could a business man be secured against sudden emergencies. A half hour's delay might swamp the staunchest house.

Ah yes, I am coming to that. When a man lends money on a written instrument he must look well to it that the person putting up the collateral has a legal right to do so. I mean such a case as this: Suppose one of the firm of Wood & Ware comes to you to buy a large bill of goods to stock his conservatory and offers you his personal note. You are a little suspicious and ask for collateral. He then offers to assign you a partnership claim as collateral security. Naturally he would have no right to make use of partnership assets to bolster up an individual claim.

So too in all business relations with minors or with people who are acting in a "representative capacity," such as guardians, executors, administrators, assignees, receivers, etc., be careful how you make contracts with them. Their powers are limited by law, and what is more, the law expects you to know what those powers are.

Another point to which I want to call your attention is this: Take care that any collateral security in the shape of a note of hand, bill of lading, bill of exchange, or negotiable instrument of any kind should be indorsed over to you or your order. Don't permit a personal indorsement for you might want to borrow some money on the collateral at once, that is to "rehypothecate" it as it is called.

A collateral security of any kind may not be diverted from its specified course. For instance, if you borrow some money from me and deposit a bond as collateral I can not upon your payment of that specific loan refuse to deliver up the bond and hold it against some other claim I may have against you.

Never pay a debt secured by collateral without demanding the return of the collateral then and there. Any other course is dangerous. In this way many simple business transactions have been transferred into vexations, quarrels, and finally into expensive law suits.

Oh, yes, Slump may pay. Any way the chrysanthemum show was a big success. **UNCLE BLACKSTONE.**

Catalogues Received.

United States Nurseries, Short Hills, N. J., hardy perennials, orchids, ferns and small shrubs; The Jewett Nurseries, White Salmon, Washington, nursery stock; Santa Ana Nurseries, Santa Ana, Cal., nursery stock; Mission Valley Nurseries, Victoria, Texas, nursery stock; H. Hopkins, Spalding, Lincolnshire, Eng., Shirley Poppies; J. M. Thorburn & Co., New York, wholesale seeds; Puyallup Nursery & Seed Co., Puyallup, Washington, nursery stock and seeds; A. M. Ramsey & Son, Mahomet, Texas, nursery stock; J. Van Lindley, Pomona, N. C., plants; same, nursery stock; Leonard, Little & Boney, Lyon, France, seeds; Geo. W. Caldwell, Evergreen, Ala., florists' forest supplies; A. W. Livingstons' Sons, Columbus, O., seeds; A. M. Herr, Lancaster, Pa., plants; D. B. Woodruff, Macon, Ga., plants and bulbs.

CHAMPAIGN, ILL.—A chrysanthemum show in connection with a supper by one of the churches here drew out a large number of people, and a general interest in these plants was manifested.

SITUATIONS, WANTS, FOR SALE.

Advertisements under this head will be inserted at the rate of 10 cents a line (seven words) each insertion. Cash must accompany order. Plant advts. not admitted under this head.

SITUATION WANTED—By a single man; gardener; rose grower. Private or commercial. Address: F. L. care American Florist, Chicago.

SITUATION WANTED—Experienced, competent florist and gardener; German, single, middle-aged man. FLOREST, P. O. Box 263, Marysville, Kan.

SITUATION WANTED—By an experienced young man, as landscape or greenhouse gardener. Address CHAS. RESCH, 131 Lowry Street, Troy Hill, Allegheny City, Pa.

SITUATION WANTED—By a competent florist and gardener, private or commercial. Successful grower of exhibition chrysanthemums. References. WM. KIRKHAM, Westwood, Hamilton Co., Ohio.

SITUATION WANTED—By a rose grower and general planter; good propagator and floral worker. Capable of taking charge of florists or private concerns. Address L. M. MAY, Rochester, N. Y.

SITUATION WANTED—By a single German, aged 25 years; experienced in all branches of greenhouse work. Either private or commercial place. References. CARL LEHLMANN, 1350 West 22nd St., Chicago.

SITUATION WANTED—By a first-class gardener and florist. German, single age 35, 20 years experience in growing roses and all kinds of hothouse plants, fruits and vegetables. Good references. HENRY HELLER, 144 Market St., Denver, Col.

SITUATION WANTED—By an Englishman single, aged 33, as headgardener in private or commercial place; several years' experience in this country; first-class rose grower. Best of references. Address R. C. P. O. Box 348 Amburdenale, Mass.

SITUATION WANTED—By an Englishman; age 27; as gardener; has long experience and extensive knowledge in orchid growing, stoves and greenhouse plants, grapes, roses, kitchen and flower gardening. Address W. H. box 218, Madison, N. J.

SITUATION WANTED—By an experienced cut flower worker; also familiar with the plant seed and bulb trade, wholesale and retail. Can make out catalogue and understand the whole routine of the cut flower trade. Many years' experience east and west. References furnished. Address J. B. 219 E. 122nd Street, New York City.

WANTED—Florists and nurserymen's catalogues. Address E. V. COLEMAN, florist, Warren, Pa.

WANTED—Experienced commercial florist as foreman; married man preferred; must be sober and competent. MEMPHIS FLORAL CO., Memphis, Tenn.

WANTED—A practical florist, to buy or lease a half interest in a 30-acre tract under cultivation as a market garden; business well established. Address S. PHIPPS, London, Madison Co., O.

WANTED—A good man (single) for general greenhouse work; must understand growing of plants and cut flowers. Salary to begin, \$25.00 per month and board. Address A. POEHLHORN, Morton Grove, Ill.

WANTED—A partner; must have commercial and practical experience in propagation. First-class facilities and good trade, can be indefinitely increased. Must take some money interest to insure reliability. 12,000 feet of glass, 2 acres ground, steam complete. Address C. CARNELL, care American Florist, Chicago.

WANTED—At once a rose grower, cut flower worker, and good propagator. Must be a man who thoroughly understands his business. To a man who is temperate, honest and industrious a good position—none other need apply. State salary and experience. Address E. V. COLEMAN, florist, Warren, Pa.

FOR SALE—In a prospering New England town, a commercial greenhouse with large dwelling and outbuildings, all new. For particulars address C. EVERDING, Branford, Conn.

FOR SALE—One to five acres, two greenhouses 18 x 100, shed stable, dwelling, etc. All new; two miles from Denver. Our sunny climate is recommended for its healing qualities. Address Box 10, Montclair, Colorado.

FOR SALE—Owing to other business, one of the finest florist stores on the North Side can be had at a great sacrifice. Low rent and first-class neighborhood. Address F. FLOREST, 203 North State Street, Chicago.

FOR SALE—An established paying nursery and greenhouse business, one of the best in California, rich soil, fine climate, long easy lease subject to purchase. Close to San Francisco, hundreds of large houses, heated throughout, complete assortment of salable stock; a splendid chance, will pay from the first day. Can be purchased with privilege of trial if desired. Any one in want of a fine established business should investigate at once. The best of reasons given for selling. Address for particulars E. SMITH, 331 Market St., San Francisco, Cal.

FOR RENT, OR FOR SALE—Three greenhouses including my complete stock, also tools, pots, etc. in town of 300 people, near R. R. 7 miles from Philadelphia. Rent \$100 per year. Possession at once. FLOREST, box 18, Haddonfield, N. J.

TREE ROSES.

4 to 5 Feet High.

Pot grown plants, and also from open ground. Best varieties and best plants in the country. Now ready for Fall trade.

GABRIEL MARC & CO.

WOODSIDE, L. I., N. Y.

IMPORTED H. P. ROSES,

Worked low on the Manetti Stock, offer the best results to the florist, blooming freely and giving plenty of cuttings for propagating quickly. Fine plants for sale by the 100 or 1000, at low rates.

Price Lists to applicants. Address

WILLIAM H. SPOONER,

JAMAICA PLAIN, (Boston), MASS.

G. BENARD,

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ROSES ON THEIR OWN ROOTS

A SPECIALTY.

NURSERY STOCK OF ALL DESCRIPTIONS

For particulars apply to

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ROSES.

35,000 of the leading Forcing and Bedding varieties: TEAS, HYBRID TEAS, and HYBRID PERPETUALS. Teas, \$5.00 per 1000; Hybrids, \$4.00 per 1000. My selection of varieties. Also the leading Prize winning varieties of CHRYSANTHEMUMS, CARNATIONS, and general greenhouse stock. Trade List mailed on application.

JACOB SCHULZ,
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Mention American Florist.

ROSES—	Per 100
Marchal Niel, 2 yr., 18-24 in.	\$4.00
" " " " " "	3.50
" Niphetos, from 24-in. pots	4.00
" Bon Silene, from 3-in. pots	4.00
" H. P. varieties, from 24-in. pots	4.00
Clematis Jackmanii, 5 yr.	25.00
Buchse of Edinburgh, 1 yr.	25.00
" Henryii, 1 yr.	25.00

SIDNEY TUTTLE & CO.,
BLOOMINGTON, ILL.

ROSES, for Forcing.

Bon Silene, Sonv. d'un Ami, Cook, Papa Gontier, and M. Niel, strong plants from 3-inch pots, \$8.00 per 100.

TEAS (strong plants, labeled sorts, from open ground, \$4.00 and \$6.00 per 100).

VERBENAS.

Perfectly healthy stock.	Per 100	Per 1000
Manmoth Collection, from pots	\$4.00	\$25.00
General " " Rooted Cuttings	1.00	8.00
Manmoth " " " "	1.25	10.00

AMPELOPSIS VETCHII, strong plants 8.00

WOOD BROTHERS,

(Successors to I. C. WOOD & BRO.) FISHKILL, N. Y.

LUCHESSE OF ALBANY.

We are now booking orders for March delivery of this grand New Rose. Also all the leading varieties of Forcing Roses.

WRITE FOR PRICES.

B. A. ELLIOTT CO.,

Hardy Plant Specialists and Rose Growers,

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THE AMERICAN FLORIST

Subscription \$1.00 a year. To Europe, \$1.50.

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Inch, \$1.40; Column, \$14.00.
Cash with Order.

No Special Position Guaranteed.

Discounts, 3 months, 5 per cent; 6 months, 10 per cent; 12 months, 20 per cent.
No reduction made for large space.

The Advertising Department of the AMERICAN FLORIST is for Florists, Seedsmen, and dealers in wares pertaining to those lines ONLY. Please to remember it.

Orders for less than one-half inch space not accepted.

Advertisements for December 15 issue must REACH US by noon, Dec. 9. Address

THE AMERICAN FLORIST CO., Chicago.

AN IMPORTANT LEGAL DECISION.

In the issue of the *Gardener's Chronicle* for November 2 appears an account of a ruling by an English court which can not fail to be of great interest to the trade.

The plaintiff had purchased from the defendant 500 roots of what was represented to him to be *Spirea palmata*, but when the plants bloomed they proved to be *Spirea elegans* which was comparatively valueless to him. He therefore claimed the amount which he would have received for the plants had they been of the variety represented to be.

There was no charge of fraud against the defendant as it was evident that he had sold the plaintiff what he thought was *Spirea palmata*.

The jury found for the plaintiff for the full amount claimed and judgment was given accordingly. Leave to appeal was given.

This establishes an important legal precedent, which should be borne in mind by those in the trade.

It is certainly no more than just that those who make errors of this kind should bear the expense caused by them and not be able to throw the loss upon the purchaser who has relied upon the seller's accuracy as well as his honesty. To have a man who has through his error caused you a serious loss simply state that he is sorry for the error but can not make the loss good is a treatment of business obligations which would not for an instant be tolerated in any other business, and should not be in this.

This precedent will be of considerable value in any attempt to recover for losses incurred through substitution on the part of sellers, as the defense of the substitutor will always be that the substitution was the result of error rather than intention. The case cited shows that one court has decided that the seller is responsible for such losses even though there be no intention to defraud. Now let some American florist who has suffered a loss of this kind bring suit and recover the amount of his loss. We believe that he can easily do so if his chain of evidence is complete. Such a judgment would we believe result in considerably lessening the number of genuine errors by making sellers more careful in labeling and in the selection of employees to put up orders, and would have a very salutary effect upon those who substitute intentionally.

Who will be the one to take up the matter to benefit not only himself, but the whole trade as well?

COMPETITION.

A subscriber writes: "We are a slow lot here except when it comes to cutting one another, and that we can't do much longer, for we have cut to starvation

prices. I see no hopes of ever having a Florists' Club here, for every man would go prepared to throttle his neighbor. Oh, we are a hard lot here!"

We can not but believe that the writer of the above has an exaggerated idea of the hopelessness of the situation. The formation of a Florists' Club should not be for the purpose of regulating prices, for we believe that any attempt to do so by direct means will invariably fail and have an injurious rather than a beneficial effect. But we do believe that a Florists' Club has a strong tendency to relieve such a situation as our correspondent has described by bringing those in the trade together, making them better acquainted with each other, uniting their interests and impressing upon them the fact that their interests are common.

To the closer social relations we attribute much of the good accomplished by these clubs. Those who have before rarely met their brethren of the craft, and then only for a few minutes at a time, are almost invariably surprised to find upon closer acquaintance that they possess qualities of head and heart never before suspected, and that they are really first rate fellows. With this discovery comes a kindlier feeling on the part of all, which if maintained will result in the gradual removal of bitter, unreasoning and unwise methods of competition.

We shall have to admit that there are some men who are so constituted that they can never maintain pleasant relations with their fellows, but such cases are fortunately extremely rare, in fact we doubt if they will average one in a thousand. But even if this thousand man happens to be in your city that is no reason why you should not receive the benefit of more fraternal relations with the others. If you have come to the conclusion that all in your city are hopeless cases while some of them manage to maintain agreeable relations among themselves, better look well to yourself, that isolated case may be in your own person.

Again, don't wait for the other fellows to make the first advance. If all wait how is a start to be made? We recommend our correspondent to make the first advance himself in his city. Visit around among the other florists and talk up the project of a club. Get a number of the more progressive ones to give it the weight of their approval and then issue a postal card call to every florist in the city to meet at some specified time and place for the purpose of organization, signing the names of those you have talked with and who have favored the project.

After your club is formed have a little patience in waiting for results. Don't expect that the millennium will follow or that the improvement can be discovered with the naked eye all at once. It will take time to soften hearts which have been hardened by years of misunderstanding, but that good will have been accomplished in a very short time, even from the first meeting, you may rest assured even though it be not plainly apparent.

In the retail trade unwise and unreasoning competition has been indulged in to a very great extent, with the result of injuring all alike where it has prevailed. But don't blame it all on the other fellows. Look to yourself and see if you have not been as guilty as others. Be honest with yourself and act accordingly.

JOSEPH LINCOLN, College Hill, O., sends a few blooms of a bouquet which

he states is a sport from elegans. The flowers were so badly dried up when received that we could form no opinion as to whether it might be considered an improvement on elegans as thought by the sender.

NEW CARNATIONS.—Chas. T. Starr, Avondale, Pa., sends us blooms of three new carnations. J. R. Freeman is a violet crimson with fringed petals and very fragrant; Wm. F. Dreer deep pink of good size, full and fringed; Golden Gate, clear golden yellow, full and of good size.

THE HUMOROUS "HISTORY OF THE origin of the Chinese 'sacred lily' which we printed in last issue, was it appears, copied from the *Practical Farmer* of Philadelphia, though sent to us as original.

News Notes.

LARNED, KANSAS.—W. T. Jackson, florist here, has made an assignment.

SCRANTON, PA.—T. B. McClintock has opened a new florist store at 314 North Washington avenue.

MINNEAPOLIS.—A chrysanthemum ball was a recent event in society circles. Great quantities of these flowers were used in the decorations.

RUTLAND, VT.—The greenhouses and their contents be'onging to W. D. Lane were completely destroyed by fire on the morning of November 20.

KANSAS CITY.—At a recent wedding chrysanthemums were the only flowers used in the decorations. It was termed a chrysanthemum wedding by the daily press.

CLEVELAND.—Florist E. G. Campbell gave an exhibition of chrysanthemums at the greenhouses on Jennings avenue which was much commended by the local press.

SYRACUSE, N. Y.—J. Neal Perkins, known to the trade through his connection with the Syracuse Pottery Co., died recently. Sipfle, Doppelf & Co. succeed the old firm.

BUFFALO, N. Y.—The florists here had to give up the project of a chrysanthemum show this fall but will be ready for one next year, and also intend to have an exhibition of roses and spring flowers before Easter.

BATH, ME.—Fire did considerable damage to the greenhouses of Z. H. Trufant Nov. 12. Loss is estimated to be about \$1000 on buildings and \$500 on plants. There was no insurance. It is believed that the fire was incendiary.

BALTIMORE.—At a meeting of Maryland florists November 18 a Floral Exchange was organized and officers elected as follows: President, Robert J. Halliday; Vice-President, John Donn; Treasurer, E. A. Seidewitz, of Annapolis; Secretary, William Feast; Executive Committee, John Wiede, William Fraser, I. E. Moss. The object is to establish for their purposes an organization similar to the Corn and Flour Exchange and the Produce Exchange. The Baltimore Florists' Club has elected the following officers: President, Robert J. Halliday; Vice-President, Wm. Fraser; Treasurer, William B. Sands; Financial Secretary, Charles G. Campbell; Secretary, Wm. McRoberts, Jr. The affairs of the club are making good progress.

THOS. YOUNG, JR.,
WHOLESALE FLORIST
 20 West 24th Street,
NEW YORK.

LILY OF THE VALLEY
 And the Choicest **ROSES** for the
 fall and winter season.

W. S. ALLEN,
WHOLESALE DEALER IN CUT FLOWERS,
 38 EAST 23rd STREET, NEW YORK.
 ESTABLISHED 1877.
 Price List sent upon application.

IV. F. SHERIDAN,
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CUT FLOWERS,
 No. 50 W. 30TH ST., NEW YORK.
 Orders to be shipped will receive prompt attention.

EDWARD C. HORAN,
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 36 WEST 29TH STREET,
 The Bride, Mornet,
 and Am. Beauties,
SPECIALTIES. **NEW YORK.**

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 Bet. 27th & 28th Sts., **NEW YORK**

HAMMOND & HUNTER,
WHOLESALE DEALERS IN
CUT FLOWERS,
 51 West 30th St., **NEW YORK.**

LaRoche & Stahl,
Florists & Commission Merchants
 —OR—
CUT FLOWERS,
 1237 Chestnut Street, **PHILADELPHIA.**
 Consignments Solicited. Special attention paid to
 shipping. **Mention AMERICAN FLORIST.**

CHAS. E. PENNOCK,
WHOLESALE FLORIST
 38 So. 16th Street, Philadelphia, Pa.

N. F. MCCARTHY & CO.
WHOLESALE FLORISTS
AND JOBBERS IN FLORISTS' SUPPLIES,
 1 Music Hall Place, **BOSTON, MASS.**
 Also entrance from Hamilton Place
 through Music Hall.

We keep a large supply of Fancies and Carnations
 always on hand. Return telegrams sent
 immediately when unable to fill orders.
AUCTION SALES OF PLANTS SPRING AND FALL.

Wholesale Markets.

Cut Flowers.

Roses, Teas.....	BOSTON, Nov. 25.	\$2.00 @ \$3.00
Perle, Sunset.....		4.00 @ 5.00
Mornet, Bride.....		6.00 @ 8.00
Goutiers, Niphetos.....		5.00 @ 4.00
Carnations, short.....		1.00 @ 1.50
Carnations, long.....		1.50 @ 2.00
Violets.....		1.00
Valley.....		1.00
Bouvardie.....		6.00
Mignonette.....		1.00
Adiantums.....		1.50
Adiantum Farleyense.....		15.00 @ 20.00
Asparagus plumosus.....		5.00
Smilax.....		12.50
Callas.....		12.50
Chrysanthemums.....		2.00 @ 3.00

Roses, Bon Silene.....	NEW YORK, Nov. 25.	\$1.00
Perle, Niphetos.....		\$1.00
Goutiers.....		2.00 @ 2.50
Mornet, Bride.....		4.00 @ 6.00
Cousins, Watteville.....		4.00 @ 6.00
La France.....		5.00
Bennetts.....		4.00
Am. Beauty.....		50.00 @ 75.00
Duchess of Albany.....		35.00
Smilax.....		12.00 @ 15.00
Mignette.....		2.00 @ 3.00
Violets.....		1.50
Carnations, long.....		1.50
Hyacinth.....		4.00
Valley, narcissus.....		8.00
Adiantums.....		1.00
l. Harlel.....		25.00
Chrysanthemums, choice.....		20.00 @ 25.00

Roses, Perle, Niphetos.....	PHILADELPHIA, Nov. 25.	\$3.00
Am. Beauties.....		15.00 @ 20.00
Mornet, La France, Brides.....		3.00 @ 5.00
Bennetts.....		3.00 @ 4.00
Violets.....		1.00
Carnations, long.....		1.00 @ 1.50
Carnations short.....		.75
Violets, double.....		1.00
Violets, single.....		.25
Fancies.....		.25
Chrysanthemums, extra.....		8.00 @ 10.00
Smilax.....		15.00
Adiantums.....		1.00

Roses, Perle, Niphetos.....	CHICAGO, Nov. 27.	\$3.00 @ \$6.00
Bon Silene.....		8.00 @ 10.00
Goutiers.....		4.00 @ 5.00
La France, Mornet.....		2.00 @ 3.00
Brides.....		7.00 @ 10.00
Bennetts, Dukes.....		6.00 @ 8.00
Am. Beauties.....		20.00 @ 25.00
Carnations, short.....		1.00 @ 1.25
Carnations, long.....		1.25 @ 3.00
Chrysanthemums.....		1.00 @ 1.50
Smilax.....		14.00 @ 18.00
Roman hyacinths.....		6.00
Valley.....		8.00
Violets.....		1.25 @ 1.50
Callas.....		15.00 @ 20.00
Bouvardie.....		1.00 @ 1.25
Stevia, bellotrope.....		1.00
Adiantums.....		1.00 @ 1.25
Asparagus tenuissimus.....		30.00 @ 50.00

WM. J. STEWART,
Cut Flowers & Florists' Supplies
 —WHOLESALE—
 67 BROMFIELD ST., **BOSTON, MASS.**
 Mention American Florist.

GEO. MULLEN,
WHOLESALE FLORIST,
Florists' Supplies Always in Stock.
 17 CHAPMAN PLACE,
 (Off School St., near Parker House),
BOSTON, MASS.
 Orders by Mail, Telegraph, Telephone or Express
 promptly filled.

WELCH BROS.,
WHOLESALE FLORISTS,
 165 Tremont Street, **BOSTON MASS.**
 We make a specialty of shipping choice Roses and
 other Flowers, carefully packed, to all points in
 Western and Middle States.
 Return Telegrams sent immediately when it
 is impossible to fill your order.

CUT FLOWERS AND WIRE WORK
AT WHOLESALE.
THE WISCONSIN FLOWER EXCHANGE,
 133 Mason Street, MILWAUKEE, WIS.
SMILAX ONLY.
WHOLESALE AND RETAIL
AT ALL SEASONS.
F. E. FASSETT & BRO., Ashtabula, O.

VAUGHAN'S
CUT FLOWER DEPT.
 88 State St., - **CHICAGO.**

Receives Fresh Flowers morning and evening
DAILY.

Send your orders to the above address, where they
 will be attended to properly.

REMEMBER.—When any one in Chicago has
 Flowers to sell, VAUGHAN has also.

WRITE FOR QUOTATIONS.

KENNICOTT BROS.,
WHOLESALE FLORISTS,
 27 Washington Street, **CHICAGO.**

We always have choice, Fresh Cut Flowers in season.
 The best packers in the trade. Orders promptly
 shipped. Store open until 9 P. M. Sundays un-
 til 2 P. M.

WIRE WORK A SPECIALTY.
 Extra designs made to order. Write for price list.
 Consignments Solicited, Telephone 406.

CHAS. H. FISK,
Wholesale Florist
AND DEALER IN
FLORISTS' SUPPLIES,

116 Dearborn Street,
CHICAGO,
Store Open Day and Night.

I keep a full stock of
WIRE DESIGNS
 of superior workmanship and at lowest prices. Ex-
 tra pieces of any description made to order on short-
 est notice. Send for Catalogue.

C. STRAUSS & CO.
 Telephone 977 and 999.
WASHINGTON, D. C.
ROSE BUDS IN ANY QUANTITY SHIPPED
ON TELEGRAPHIC ORDERS,
 See our Large Advertisement on page 197.

CUT ROSES AT WHOLESALE.
 The only establishment in the west growing
 Cut Roses exclusively.
CUT, PACKED AND SHIPPED THE SAME DAY.
 Only handled once, then by experienced per-
 sons. All packages delivered on trains, thus en-
 abling parties at a distance to get fresh Cut
 Roses.
 Orders by Mail or Telegraph promptly at-
 tended to.

GARFIELD PARK ROSE CO.,
 1688 Madison Street, **CHICAGO, ILL.**

JOHN M. HUDSON,
WHOLESALE
Commission Dealer in Cut Flowers,
 1225 Market St., **ST. LOUIS, MO.**

Quick sales and prompt returns guaran-
 teed. Consignments solicited.

CUT FLOWERS
 The choicest Cut Flowers at lowest market rates
 shipped C. O. D. Telephone connection. Use A. P.
 Code when ordering by telegraph. For prices, etc.,
 Address,
J. L. DILLON, BLOOMSBURG, PA.

The Seed Trade.

SEED TRADE ASSOCIATION.

H. W. JOHNSON, Philadelphia, president; ALBERT M. McCULLOUGH, Cincinnati, secretary and treasurer. The eighth annual meeting at Saratoga Springs, N. Y., June, 1890.

Naming New Vegetables.

The committee on nomenclature of vegetables of the Association of American Agricultural Colleges and Experiment Stations, report the following:

RULES.

1. The name of a variety should consist of a single word, or at most of two words. A phrase, descriptive or otherwise, is never allowable; as, Pride of Italy, King of Mammoths, Earliest of All.

2. The name should not be superlative or bombastic. In particular all such epithets as New, Large, Giant, Fine, Selected, Improved, and the like should be omitted. If the grower or dealer has a superior stock of a variety, the fact should be stated in the description immediately after the name, rather than as a part of the name itself; as, "Trophy, selected stock."

3. If a grower or dealer has procured a new select strain of a well known variety it shall be legitimate for him to use his own name in connection with the established name of the variety; as, Smith's Winningstadt, Jones' Cardinal.

4. When personal names are given to varieties, titles should be omitted; as, Major, General, Queen.

5. The term hybrid should not be used except in those rare instances in which the variety is known to be of hybrid origin.

6. The originator has the prior right to name the variety; but the oldest name which conforms to these rules should be adopted.

7. This committee reserve the right, in their own publications, to revise objectionable names in conformity with these rules.

A hybrid is the product of true species. There are few, if any, instances of true hybrids among common garden vegetables. The union of varieties gives rise to a cross.

J. H. MUNSON is reported to be in an insane asylum in Minnesota.

MOREHOUSE & COBB succeed Morehouse & Annis at Rochester, N. Y.

ONION SEEDS seem to be going lower, holders desiring to save winter storage.

MESSRS. LANDRETH & SON report the Pennsylvania onion seed crop the poorest for forty years.

VISITED CHICAGO.—Geo. S. Haskell, Henry A. Salzer, Albert Landreth, Alfred J. Brown of Grand Rapids. E. D. Adams, Thos. Griswold.

MR. A. W. SMITH corrects us as to the name of the new watermelon, which he says should be "Ruby Gold," and that J. L. Childs purchased the entire stock.

Horticultural Education.

I am glad to see that the discussion of the question of horticultural education has been started. There is no doubt that the training in practical horticulture in the most of our agricultural colleges is and must of necessity be a mere farce. Men cannot teach effectively what they do not thoroughly understand themselves.

The great majority of those who are engaged in teaching horticulture in these colleges have only a theoretical knowledge of the art. They have never "fought frost" winter after winter; they have never been in the keen competition of producing plants and flowers for a critical market. They have never worked weeks and months to discover the exact needs of a "finicky" orchid or some other plant needing peculiar treatment. They have never come in competition with real gardeners in producing specimen plants, fruits or flowers to be criticized by expert judges at a great exhibition. In a word, they have simply studied books and not things.

Emerson well said that "manual labor is the study of the external world." No matter how much a man studies of what other men have done in any line of practical work, he will never fully comprehend the subject until he handles and studies the work itself. The writer has all his life dreamed of an ideal horticultural school, and hoped to realize it, but the dense ignorance of those who direct the financial affairs of institutions where horticulture in all its branches should be effectively taught, ever interferes with true progress in this line. I am almost inclined to think that our State Agricultural Colleges will never develop thorough schools of horticulture and that the only hope is for a school founded and sustained by those directly interested in the full development of the art, the nurserymen, florists and seedsmen of the land. The scope of the art is so broad that no commercial establishment can properly train young men in all its branches. Such an institution should not be a mere trade school, simply to train florists, or nurserymen or seed growers or landscape gardeners, but a school where a thorough laboratory training in the anatomy and physiology of plant life, and in systematic botany would run parallel with practical work in floriculture, plant growing, forcing of fruits and vegetables under glass, kitchen garden, orchard, vineyard and nursery work, where true taste in landscape art is incul-

cated by precept and example and the effort is made to develop brains and capacity in every department. Then the graduates would be ready to take up any department as a specialty and prosecute it successfully. The time and the men capable of doing all this will seldom if ever be afforded by our Agricultural Colleges. The almost invariable practice has been to locate these institutions on the poorest tract of run-down land which the State can buy or some one give them to get rid of it, and the trustees imagine when they have appointed a Professor of Horticulture and built one little 8 x 10 greenhouse that they have given horticulture its full share in the institution, when they have simply made it impossible for the most capable man to do effective work.

Let us have a great horticultural training school, where the professors are not afraid to stain their fingers in laboratory and garden nor ashamed to don a blue apron and lead a class with skilled fingers in any line of practical work. The nurserymen, florists and seedsmen of the United States are well able to found and sustain such an institution and one such school, well endowed and properly manned will do more for American horticulture than all our agricultural schools will ever do. In the line of landscape work it is true that "Poete nascitur, non fit" is true to a great extent, but such an institution would do much to develop latent talent in that line, and to correct much that is now erroneous and ridiculous.

W. F. MASSEY.

N. C. College of Agl. and Mech. Arts, Raleigh, N. C.

SEND in your order now for a copy of the new directory, price \$2. It will be ready January 1 next and will be a great advance on the old one. We have spared no expense or labor to make the list perfect, and from the enormous number of changes made from reliable information we believe it will be as near correct as it is possible to get it.

We can now furnish in any quantity desired Debit and Credit Tickets of which we give below samples reduced one-half in size.

DEBIT. <i>Jan'y 10 1889</i>			
<i>John Smith</i>			
100	<i>Verbena</i>	3	—
50	<i>Geranium</i>	4	—
		7	—

CREDIT. <i>Jan'y 10 1889</i>			
<i>Richard Roe</i>			
500	<i>4 inch pots</i>	5	—
174	<i>2 1/2 "</i>	5	—
		10	—

The debits are printed in black and the credits in red, so they can be readily distinguished. They are put up in blocks of 100; 50 of each, placed back to back; thus but one block will have to be carried. By means of these tickets an entry of a sale or receipt of goods can be made anywhere—in the house or in the field—and afterwards filed. Tickets for each transaction in your business will make data from which a book-keeper can readily work. With this simple and easy means of keeping a record of your business you can afford to neglect so important a matter?

Price of Tickets, postpaid, 100, 20c.; 200, 35c.; 300, 50c.; 500, 75c.; 1000, \$1.40.

AMERICAN FLORIST CO.,

54 La Salle Street, CHICAGO.

CALDWELL'S CHRISTMAS GREEN

Is the **FINEST OFFERED**; always carefully selected, and packed **FRESH FROM THE FORESTS**. NO ICE BOX or STORED STOCK IN MINE. The following prices are quoted, delivered in any city. **CASH MUST ACCOMPANY ORDER**, and I prepay all Freight and Express charges.

PROMPT DELIVERY GUARANTEED.

"SPEED MY SPECIALTY."

FERNS, FANCIES AND DAGGERS, per 1000, \$2.00; 2000, \$3.50; 5000, \$7.50.

HOLLY, 16 foot Case, \$6.00; Barrel, \$3.50. Foliage dark green, plenty of berries.

MISTLETOE—Caldwell's Druid Brand—in Baskets of two-thirds Barrel, \$4.00.

LONG NEEDLE PINES, a splendid seller, 25c.; 300; 500; and 1000; 2, 3 and 5 feet.

WILD SMILAX, finest Evergreen on earth; magnificent for large decorations; per Barrel, \$4.00.

YUPON, lovely Florida Evergreen, **SOME-TIMING NEW**, small green leaves, myriads of red berries. Barrel, \$5.00.

GRAY MOSS, per lb. by mail, 25c.; per bbl., \$3.25.

PALMETTO LEAVES, put up in HALF Dozens, to sell across the counter. Holly, good seller; per 100, \$5.00; 500, \$15.00; 1000, \$25.00. Carefully packed, fresh and bright.

MAGNOLIA BRANCHES, \$3.00 per Barrel.

Magnolia Leaves make beautiful Wreathing. Send for sample piece of **CALDWELL'S MAGNOLIA TRIMMING**. Per 1000 leaves, \$2.00.

SPECIAL OFFER.

To introduce my goods, on receipt of \$3, I will send, Express charges prepaid, 1000 assorted Ferns, 2 Long Needle Pines, 6 Palmetto Leaves, vine of Wild Smilax, 50 Magnolia Leaves, piece of Magnolia Trimming, pound of Grey Moss, Branches of Holly, Mistletoe, Magnolia and Yupon. Quite enough material to **DECORATE YOUR WINDOWS FOR CHRISTMAS**.

—MY GOODS ARE FOR SALE BY—

A. Rolker & Sons, 41 Day St., N. Y.; W. J. Stewart, 67 Bromfield St., Boston; L. A. Roche & Stahl, 127 Chestnut St., Philadelphia; Wisconsin Flower Exchange, Milwaukee; John M. Hudson, 1225 Market St., St. Louis; Geo. W. Hill, 115 Randolph St., Detroit; N. S. Griffith, Kansas City, Mo. I do not fill orders to cities where I have agents, except \$3.00 sample lot, and to old established customers.

WANTED—A floral house to handle my goods wherever I am not established.

Send for Terms, Samples and Price Lists.

CALDWELL, The Woodsman, EVERGREEN, ALA.

EVERGREEN WREATHING, well wound or heavy cord, splendid quality, \$5.50 per 100 yards, \$30.00 per 1000.

EVERGREEN IN BULK, bbl. (25 lbs) \$1.50.

HOLLY, per barrel, splendid quality, \$2.00.

HOLLY WREATHS, 10-in., per dozen, \$1.50.

EVERGREEN LETTERS, 10-in., 100, each.

KEENAN'S SEED STORE, 6016 Wentworth Ave., CHICAGO.

The best Christmas Present for a working florist will be "Floral Designs," the help for cut flower workers. Write about it to J. Horace McFarland, Box 55, Harrisburg, Pa.

TUBEROUS BEGONIAS.

SEED saved from the cream of 7,000 plants of superior single varieties, many of them measuring 3 to 5 inches in diameter; the shades of color are grand. Trade packets (mixed) \$1.00 each.

FISHER BROS. & CO., NEW ENGLAND NURSERY, MONTVALE, MASS.

CYCLAMEN

Seed from our best plants, chiefly Giganteums, an extra fine strain. White, white with crimson and mauve base spots, also shades of crimson and lilac. Sow at once. Our sowings are germinating freely. Per packet 25c., 50c. and \$1.00.

J. LAURENCE, Harrisburg, Pa.

MRS. F. A. GRANTHAM, VAIDEN, MISS.

Offers to the trade: Evergreens of all kinds, such as Mistletoe, Holly, English Ivy, etc. Also Cut Flowers, all varieties in season. Cape Jessamines and Sweet Violets a specialty. Correspondence solicited.



No. 767 Under the Mistletoe. Electro of this cut \$1.50



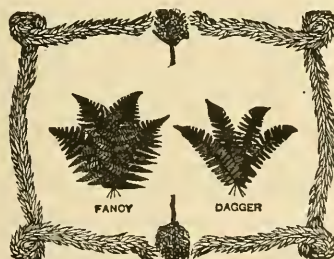
No. 9191 Holly Wreath. Electro of this cut \$1.50. A larger size (4 inches), \$3.00.

Both cuts can be furnished without the Mistletoe, reserving space for type.

ELECTROTYPES OF THE ABOVE CUTS ARE FOR SALE BY

A. BLANC, HORTICULTURAL ENGRAVER, Philadelphia.

7000 OTHER ELECTROS in stock suitable for Florists, Seedmen and Nurserymen's Catalogues and general printing. Send for List of Catalogues, a set of which will be sent on receipt of 50 cents, deducted from first order.



NEW PRIMULA OBCONICA SEED CROP

Packet (about 1000 seeds) . . . \$1.00
PRIMULA FLORIBUNDA, pkt (100 seeds) 25c.
PRIMULA OBCONICA PLANTS, from 3 & 3½-inch pots, \$1.25 per doz.; \$10.00 per 100.
PRIMULA FLORIBUNDA, 2-inch pot plants, 60 cts. per doz.; \$4.00 per 100.
L. N. KRAMER & SON, Marion Iowa.

VERBENAS.

Orders booked now for rooted cuttings.

STOCK ABSOLUTELY HEALTHY.

General Collection, most approved sorts, largely of best MAMMOTHIS, \$1.00 per 100, \$8.00 per 1000.

SMILAX, 2½-inch pots, \$2.50 per 100, \$20.00 per 1000.

Address **J. G. BURROW, FISHKILL, N. Y.**



No. 741 Flowers for Christmas. Electro of this cut \$1.50



No. 9455 Christmas Eve, \$1.50. A larger size (No. 4520) \$2.50.

1,000,000 EVERGREEN CUT FERNS

ESPECIALLY FOR FLORISTS' USE.

\$1.50 per thousand Ferns. Discount on large orders. Special attention paid to supplying to the wholesale trade. Write for prices.

BOUQUET GREEN. \$2.00 per bbl. (30 lbs) \$6.00 per 100 lbs.

20,000 yds BOUQUET GREEN WREATHING, all wound with wire in first class manner.

3-in. flat or one sided wreathing. 4 cts.

5-in. round wreathing, with cord to center. 6 cts.

6-in. round wreathing, with cord to center. 8 cts.

5-in. round wreathing, with cord to center. 10 cts.

700 BBLs. DRY SPHAGNUM MOSS, \$1.00 per bbl or 6 bbls. for \$5.00. Write for terms on large lots.

L. B. BRAGUE, Hinsdale, Mass.

Coleus, Rooted Cuttings.	Per 100
Geraniums, rooted cuttings.	\$ 1.00
Hydrangea, rooted cuttings.	2.00
Chrysanthemums, rooted cuttings.	2.00
Dracaena, rooted cuttings.	8.00
Mrs. Alphus Hardy, 2½-inch pots.	25
Mrs. Andrew Carnegie, 2½-inch pots.	25

Write for prices on other cuttings.

W. W. GREEN, SON & SAYLES, WATERTOWN, N. Y.

FOR SALE.

Primula obconica, strong, transplanted, \$1.50 to \$2.00	per 100
Hydrangea, hortensis, 2½-in. pots, strong.	5.00
Begonia rubra, 500 pots, strong.	5.00
Begonia metallica, 6-in. pots.	1.00
Carex sp. lanceolata.	10.00
Helianthus multiflorus, plants.	5.00
50 at 100 rate, cash with order. Orders booked now for plants or rooted cuttings of: Carnations at low prices, Orient, best crimson; Florence, Miss. Carrie, Hince's White, Fortia, Century, Mrs. Carnegie, Grace Wilder, J. Perkins.	

FRED. BERKE, Bellevue, Pa.
 Mention American Florist.

185 Water Street, NEW YORK

Nomenclature.

In a lengthy article on page 160 Mr. Whittle enquires what has been done by the committee appointed a long time ago, as then understood, to correct errors in the names of plants sold by the trade, and to give us the original and only correct names. Mr. Whittle was, I believe, one of that committee, and should know if anything has been done. As an outsider I should say that nothing had been done, but I may have made a mistake, not being posted.

I have some recollection of another member of the committee writing favorably of an individual who sold some old rubbish at ten times its value as the Aurora Borealis plant or something of that sort, for the reason that no one would buy it at any price under its proper name.

Mr. Whittle enquires who made Reichenbach an authority. All botanists and orchid growers who know his life-long researches among these plants.

After propounding this question he has an itchy sensation, and wishes to know who gave the name of Scabiosa to one of our old-fashioned plants. The name does not mean the itch, but was applied because the plant was supposed to cure that disease, according to a German botanist who edited one of Linnaeus' books. It would certainly be a strange commencement for a few members of this committee to change a name because of unpleasant associations, when probably not one person in ten thousand, outside of botanists had ever thought about it, and Mr. Whittle did not know its origin. If this is to be the best result the committee had better be discharged.

Maywood, N. J. JAMES TAPLIN.

Carnation Cuttings.

In reply to Mr. William Russell of Walkerton, Ont., I may say that it is customary with carnation growers generally, to select their cuttings during the winter while the plants from which they are taken are flowering their very best. And my article which appeared in the FLORIST November 1, which Mr. Russell refers to, is no departure from that custom, except so far as I urge the necessity of securing the cuttings as much as possible during the month of December, before the plants are enervated by excessive heat, which if such a condition happens, is more likely to do so just before and during the holiday season than at any other time.

I cannot see why good, healthy cuttings should not make flowering plants even if taken from a plant of any given variety not in flower or not having previously flowered, I never had any such experience.

H. E. CHITTY.

INDIANAPOLIS.—The officers of the Society of Indiana Florists for the ensuing year are: President, M. A. Hunt, Terre Haute; Treasurer, Fred Dornier, La Fayette; Secretary, Wm. G. Bertermann, Indianapolis; Assistant Secretary, John Hartje, Indianapolis. The officers of the Indianapolis Florists' Club are: President, Wm. Langstaff; Secretary and Treasurer, John Hartje.

DOUBLE WHITE PRIMULAS

Fine plants, from 3-in. pots at \$5.00 per 100

BOUVARDIAS.

Strong plants, from 5 and 6-inch pots at \$15 per 100. ADDRESS

A. R. REINEMAN & BRO.,
39 Fifth Ave., PITTSBURG, PA.

PRIMROSES.

A fine strain of Single Primroses, 4-inch pots, at \$5.00 per 100; 3-inch pots at \$5.00 per 100.

PRIMULA OBCONICA.

Strong plants, at \$1.50 per dozen.

SMILAX.

Good strong plants, in 3-inch pots, at \$3.00 per 100, \$25.00 per 1000.

LATANIA BORBONICA.

Fine shaped plants, in 4-inch pots, at \$3.00 per dozen, \$20.00 per 100.

DRACENA TERMINALIS.

Good color, 5-inch pots, \$3.00 per dozen.

DRACENA FERREA.

Strong plants, 5-inch pots, \$3.00 per dozen.

AMPELOPSIS VEITCHII.

From open ground, \$5.00 per hundred.

ROSES.

Good assortment in Teas, strictly my selection, at \$35.00 per 100. Strong Baltimore Belle, in 4-inch pots, at \$10.00 per 100. Gen'l Jacqueminot, in 2-inch pots, at \$5.00 per 100. Send for Fall Catalogue.

GEO. W. MILLER,

1748 N. Halsted St., CHICAGO.

AUGUST RÖLKER & SONS

Will Remove their

HORTICULTURAL DEPOT

to 136 and 138 W. 24th Street.

ADDRESS LETTERS AFTER JANUARY 1st, 1890

STATION E, NEW YORK.

FOR PEACH PITS Nurserymen

We offer the following choice stock of PEACH STONES, from original seedling trees, not cash price. Free on board cars or steamer, Philadelphia, sacks included.

Tennessee Natural, per bu. \$1.75, per 10 bu. \$15.00

Virginia " " 1.50, " 12.50

Smocks " " 1.25, " 10.00

Prices are for measured bushels. Special prices for larger quantities. Catalogues free.

WM. H. SMITH, Seedsman,

P. O. Box 1570. 1018 Market St., PHILA., PA.

Mention American Florist.

TO THE TRADE.

HENRY METTE,
Seed Grower and Merchant,
QUEDLINBURG, GERMANY.

(ESTABLISHED 1871.)

Will be pleased to quote special prices for garden, agricultural and flower seeds saved at his extensive grounds, which cover more than 4,000 acres.

I OFFER FOR CASH.

	Per 100	Per 1000
5000 Smilax.....	\$15	\$20.00
1000 Fuchsia, Phenomenal.....	3.50	
400 Cissus Discolor.....	5.00	
300 Lantana, white and rose.....	3.00	
300 Begonia L. Chretien.....	4.00	
200 Dracena Indivisa, 1 year.....	5.00	
100 Lobelia, Wave of Blue.....	5.00	

Address JOSEPH E. BONSAAL,

308 Garfield Ave., SALEM, OHIO.

FEW THOUSAND VIOLET PLANTS LEFT.

All in blooms, good, strong, healthy plants, 10 per cent. better than last year. Per 100 Per 1000

Marie Louise, double blue.....\$2.50 \$25.00

Czar, single blue.....2.50 25.00

Swanley White double white.....2.00 18.00

Rangers of Swanley White, well rooted, 1.00 8.00

Also 3000 Magnolia grandiflora in 2 and

2 1/2-in. pots.....5.00 45.00

Or will sell 50% of any of the above at 100 rates.

Cash must accompany orders from unknown parties.

Address M. TRITSCHLER & SONS,

HYDE'S FERRY GARDENS, NASHVILLE, TENN.

IMPORT AND EXPORT NURSERIES.

F. A. RIECHERS & SOHNE, A. G.

HAMBURG, GERMANY.

Immense stock of Azalea Indica, Camellias, Lily of the Valley, Palms and Dwarf Roses.

PRICE LIST ON APPLICATION.

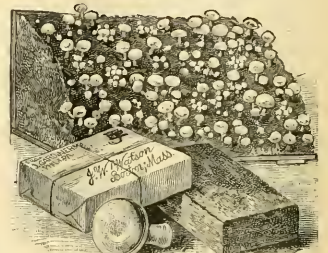
MRS. J. S. R. THOMSON, Spartanburg, S. C.

(2 years State Vice-President S. A. F.)

OFFERS TO TRADE Moon Flower Seed, Eulalia, Dioscorea, Crinum, Pancratium, 5 var. Anarchy, Anklonon leptopus, open air grown Teas, 1 year, 3 var. Latis, Euphorbia corollata, Crozy's Dwarf Cannas and C. Baccida, Candidum esculentum.

MUSHROOM SPAWN.

Best Imported English Milltrack.



Gardiner's Genuine English Milltrack Mushroom Spawn.

John Gardiner & Co. make a specialty of genuine English Milltrack Spawning. Why waste your money on doubtful quality, when you can buy the genuine English Milltrack at a reasonable price?

Can be thoroughly relied on to produce a fine crop of the best Mushrooms. Specially prepared for our trade by one of the most celebrated growers in Worcestershire.

Four important facts a season—always fresh and unsurpassed in quality. The price commands itself.

By mail, post-paid, 22 cents per pound; five pounds for \$1.00. By express, at customers' expense, ten pounds for \$1.20; fifty pounds for \$5.00. Write for special prices on large lots.

FRENCH SPAWN.

In 2-lb. boxes, by express, 80 cents; ten boxes \$7.00, twenty-five boxes \$15.00, fifty boxes \$27.50.

NOTE.—For culture of French Mushroom, see pamphlet "Mushroom Culture," by Vilmoren, sent free on application with every order for spawn.

For culture of "English Milltrack" Spawning, see our pamphlet "Mushrooms for the Million," free for stamp with all orders when requested.

Address all orders and communications to
JOHN GARDINER & CO., 21 North 13th St., PHILA., PA.

SURPLUS STOCK.

ROSES: Papa Contier, Sunset, Perle des Jardins, Hermosa, Sumbriell, M. Niel, La France, Niphetos, C. Mermet, C. R. du Parc, Washington (Noisette), fine plants, from 2-inch pots, \$5.00 per 100; 2-inch pots, \$3.00 per 100.

SMILAX, 2-inch, fine.....per 100, \$3.00

ALYSSUM, double....." 3.00

BEGONIA RUBRA, 3-inch....." 4.00

BEGONIA ALBA PICTA (new) fine....." 4.00

STAPELIA SERPENTINA....." 3.00

EUCHARIS AMAZONICA, 4-in. fine, per doz. 2.00

NEW BRONZE GERANIUMS, Fire of Tacoma, Bash

Bash, and Andrite, other germans. Send for descriptive circular, per doz. 12.00.

NEW DOUBLE FRINGED PETUNIA, HERMAN MEL-

VILLE, the best of all, ready Jan. 1st. Send your order now. Orders booked and filled in rotation. Price, 25c. each; \$2.50 per doz.

BEACH & CO.

RICHMOND, IND.

SURPLUS STOCK NOW READY.

1200 Bartlett Pears, 1 to 3 years, \$20 to \$25 per hundred.
1000 Kieffer Hybrid, 1 to 3 years, \$20 to \$25 per hundred.
1000 Le Conte Lawson and all the standard kinds.
20,000 fine Peach trees, all guaranteed to 1st class, 5 to 7 feet, \$5.00 per hundred, \$50 per thousand.

25¢ Above stock going rapidly—order at once.

5000 Apple trees, 5000 Grape vines, 1000

Pink trees, 3000 Blackberry plants, 4000

fine Chrysanthemums.

Will be ready to book orders for small plants and

rooted cuttings, Verbenas, Feverfew, Fuchsias, Geraniums, Acanthuses, Plants for Christmas.

Ac. Having increased our facilities so as to be able

to deliver stock promptly and at short notice. Satisfaction guaranteed or money refunded.

J. C. GIBSON, Woodbury, N. J.

WANTED TO EXCHANGE.

From 100 to 200 Storm King Fuchsias, 4-inch pots,

for white Camellias. Plants for Christmas. Address,

W. E. SARGENT, 65 Main St., Worcester, Mass.

R. S. BROWN & SON, WHOLESALE and RETAIL FLORISTS, KANSAS CITY, MO.

Roses Everblooming of sorts, str'g	\$15 00
" medium, \$10; small	4 00
" H. P., strong,	\$15 to 25 00
Passiflora Trifasciata, fol. finely var.	8 00
" Incarnata, hardly free bl'r	6 00
Coleus, best new and old	2 00
" A. B. Clark, 6 in. high, leaf	
ser., green edge, pink cent. Ext.	6 00
Geranium Snow Storm, best varie-	
gated sort, either for pots or bed'g	6 00
Pelargonium, or Lady Washington	
Geranium	\$6 00 and 8 00
Abutilons, fine kinds	4 00
Achyranthes	3 00
Alternantheras, of sorts	2 00
Alyssum, 2 kinds	3 00
Anthericum vitatum	6 00
" picturatum	10 00
Begonias, Flowering, of sorts	4 00
" Rex, of sorts	\$5 to 16 00
Cuphea or Firecracker Plant	3 00
Cyperus alternifolius	8 00
Echeveria glauca	\$2 50, \$4 00 & 5 00
Euphorbia splendens	\$4 00 & 6 00
Ferns, in sorts	8 00
Geraniums, double and single, \$3 to	4 00
" Ivy, in sorts	4 00
" Mme. Salleroi	3 00
" scented, in sorts	3 00
Hibiscus, of sorts	4 00
Lantanas	4 00
Lemon Verbena	4 00
Lobelia, trailing and dwarf	3 00
Moon Flower	4 00
Nasturtium, new double red	4 00
Pilea arborea (Artillery plant)	3 00
Spotted Calla	6 00
Thyme Golden	4 00
Tradescantia discolor	8 00

Have many varieties of plants not mentioned here; Send for Trade List.

SPHAGNUM MOSS.

WE OFFER FOR THE NEXT 20 DAYS
CHOICE, CLEAN DRY MOSS, AT

One Barrel	\$ 75
One Bale	1 75
Two Bales	3 00
Five Bales	8 50
Ten Bales	12 00

LYCOPODIUM.

One Barrel (25 lbs.)	\$1 75
100 pounds	4 50
250 pounds or over	4c. a pound.

Cash with orders. Large lots, special prices.
All of above free on board of cars at La Crosse.

WANTED.

200 M. THIBAUT FUCHSIAS. State price.

JOHN A. SALZER SEED CO.,
La Crosse, Wis.

BEGONIA SEMP. GIGANTEA ROSEA

	Per doz.	per 100
4-inch pots, strong	\$1 50	\$10 00
2½ and 3-inch pots	1 00	6 00

CALLAS.

4-inch pots	1 30	8 00
3-inch pots . . . . .	.75	6 00
2½-inch pots . . . . .	.50	3 00
From flats, strong plants		2 00

Also a fine lot of PEARL TUBEROSE BULBS,
at \$2 per 100, \$15 per 1000.

A. R. ALDRICH, Florist,
SPRINGFIELD, OHIO.

CHRISTMAS TREES.

Extra select forest grown Spruce and Balsam, at very low rates, for first quality stock. Also few nursery grown Spruce and Pine, and Arbor Vita trimmings. Send for prices and freight rates before you buy stating quantity wanted.

JOSEPH BANCROFT, Cedar Falls, Iowa.

HEADQUARTERS for CHRISTMAS TREES!

Wisconsin Blue Spruce. The finest of all in form and color. Well furnished, se-



lected trees, carefully packed in light, strong crates, containing 25, 50 and 100 trees, delivered, Freight Charges Paid to any point within 500 miles of Chicago, at prices here quoted:

	25	50	100
4 to 6 feet	\$ 3.50	\$ 6.00	\$10.00
6 to 8 feet	6.00	11.00	20.00
8 to 10 feet	10.00	16.00	30.00
10 to 12 feet	15.00	25.00	45.00
12 to 14 feet	20.00	35.00	60.00

Special correspondence solicited on car lots.

As the Western Classification of roads now exact, by a recent ruling, ACTUAL PREPAYMENT of all freight charges on Christmas Trees, I am obliged to assume these charges, and also all risks of transportation; hence I am under the necessity of insisting upon the following

TERMS OF PAYMENT:—At least one-half cash with order; balance 30 days approved credit. All bills to be paid not later than January 1st, 1890. No attention will be paid to orders not complying with above terms.

W. D. BOYNTON, SHOCTON, WISCONSIN.

Mention American Florist.

A. T. Merrick.

Artistic ENGRAVER
for FLORISTS.
711 CHICAGO OPERA HOUSE.
CHICAGO.



DAHLIAS.

Large Garden Clumps of 50 choice named varieties.

Special Price for Nov. and Dec. Delivery,
per 100, \$10; per 1000, \$90.

BEGONIAS REX.

A fine assortment from 3-in. pots, at \$8 per 100.

MICHEL PLANT AND SEED CO.,
St. Louis, Mo.



Rooted Cuttings.

YOUR TRADE SOLICITED.

CARNATIONS. Silver Spray, Wm. Wayne, Hinz's, L. L. Lamborn, Edwards's and twenty colored varieties.

GERANIUMS. All the best old and new FUCHSIAS. Mrs. E. G. Hill, Phenomenal, Storm King, and others.

COLEUS. Have one 100 foot house filled with stock plants of twenty good hedging varieties.

SPECIAL. Cuttings will be well rooted, true to name, packed carefully and as light as possible. Samples sent for 10 cts. in stamps. SEND FOR COMPLETE LIST.

ALBERT M. HERR, Lock Box 338, Lancaster, Pa.

Christmas Trees.

FINE SHAPELY TREES, 4½ to 6 feet, f. o. b. Boston,

\$50 per 100. Price of Larger Sizes and for Car-load lots on application. Address W. S. LITTLE, ROCHESTER, N. Y.

Begonias, Caladiums, Gloxinias, &c.
JOHN LAING & SONS

beg to offer their IMMENSE and SUPERIOR STOCKS by the 100 or 1000.

Catalogues and full particulars free on application.
Seed and Plant Merchants,
FOREST HILL, LONDON S. E., ENGLAND.

HEADQUARTERS FOR
LYCOPODIUM,

Dry Baled Sphagnum Moss, and
CHRISTMAS TREES—AM. SPRUCE.

Buy from first hands and save middle men's commission. Write for prices.
Z. K. JEWETT, Sparta, Wis.

Boston Notes.

English primroses are among the novelties in cut flowers now seen in the florists' windows.

Some of the local members of the National Chrysanthemum Society are enquiring whether an award for any chrysanthemum was made by this society this year at Indianapolis, and, if so, what for.

H. S. Messenger one of our well known florists died at his home in Milton on November 19, at the age of 42. Mr. Messenger has been in failing health for some months and his death was not unexpected. He was highly respected by all who knew him.

Auction sales of budded roses, spirea and similar fall supplies have been unusually successful this season. A fine stock of this description was sold by N. F. McCarthy & Co. for J. A. De Veer of New York on November 11, and brought good prices.

A delegation of six went from Boston to attend the Philadelphia chrysanthemum show, and the opening of the new reading room and bowling alley of the New Jersey Social Florists' Club. They found everywhere an abundance of that hearty hospitality which is a characteristic of the craft wherever you go, and fittingly wound up a most enjoyable trip by coming home all together.

W. J. S.

Laurestinus.

Replying to L. G. P. it is not necessary to cut back the plants except to trim into shape. This should be done just after blooming. Rich, heavy soil is best. Temperature should be about 50° in winter season.

SEND IN ORDERS NOW FOR SPRING DELIVERY OF



JAPANESE MAPLES,

of which we import 20 choice varieties.

Maple Seedlings for Grattling.

HARDY MAGNOLIAS and other Flowering Shrubs.
AUSTRALIAN TREE FERNS, Acanthaceae, Cycas
revoluta, Rhapsis, Kentias, Date and California
Palms.

BULBS.

Thirty choicest varieties from Japan.
Sacred Lily from China.

SEEDS.

Fresh from Japan and Australia.

PAMPAS PLUMES.

A very Choice lot on hand.

Send for Estimates and Price Lists.

H. H. BERGER & CO.,
P. O. Box 1501, SAN FRANCISCO, CAL.
Established 1878.

J. ROEHRS,

CARLTON HILL, N. J.

(Formerly called Rutherford.)

Offers to the trade a large stock of Decorative plants in large and small sizes, in highest possible state of cultivation, such as

Areca, Kentia, Phoenix, Chamaerops, Latania, Rhapsis, Aspidistra, Dra-caenas in variety, Etc.

I issue no Catalogue, inspect stock yourself if you wish to purchase. Only 20 minutes ride by Erie R. R. from foot of Chambers and Twenty-Third Street, New York.

IMMENSE STOCK OF

PALMS, ORCHIDS & DECORATIVE PLANTS

WHICH EVERY FLORIST SHOULD CARRY.

Wholesale Catalogue sent free. New Illustrated and Descriptive Catalogue (208 pages) 25c., which amount will be allowed on first order.

SIEBRECHT & WADLEY,

ROSE HILL NURSERIES, New Rochelle, N. Y.

409 FIFTH AVENUE, NEW YORK.

ORCHIDS. ORCHIDS. ORCHIDS.

IN ALL THE LEADING VARIETIES,

FROM

BURMAH, BORNEO, BRAZIL, COLUMBIA, COSTA RICA,
PERU, MEXICO and MADAGASCAR.

Send for special price list to

F. SANDER & CO.,

IMPORTERS AND GROWERS,

SUMMIT, N. J.

DECORATIVE PLANTS

PALMS—Seaforthia elegans and Corypha australis, fine plants 2 ft. high, from 5-inch pots, \$40 per 100, \$350 per 1000. Palms, 6 species mixed, 18 inches high, \$6 00 per dozen.

FERNS—12 finest species, from 5-inch pots, \$4 per doz. 20 best sorts, from 2½-in. pots, \$5 per 100, \$40 per 1000.

DRACENAS—25 named sorts, from 4-in. pots, \$20 per 100.

Terminalis, from 5-in. pots, \$40 per 100.

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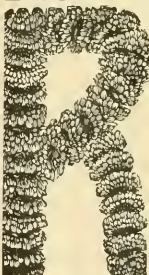
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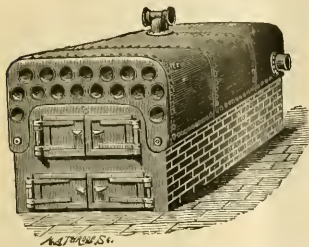
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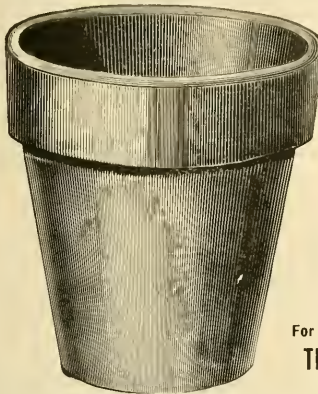
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Index to Advertisers.

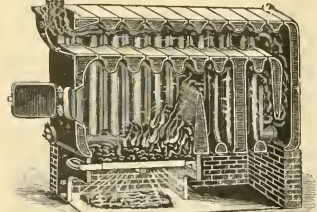
Advertising Rates, etc.	188
Aldine Printing Wks.	188
Aldrich A. B.	185
Allen, W. S.	189
Association Flora.	185
Bailey P. A.	185
Bancroft Jos.	185
Bayersdorfer M. McC.	185
Beach & Co.	184
Bernard G.	187
Berger, H. H. & Co.	191
Bianc A.	191
Bonsall Joseph E.	191
Boynton W. H.	186
Brague L. B.	191
Brackenridge & Co.	191
Brown R. S. & Son	191
Burki Fred.	191
Burrow J. C.	191
Caldwell Geo. W.	191
Carmody J. D.	200
Connelly John.	192
De Voe J. A.	192
Devine, Peter.	192
Diez John L. & Co.	191
Dillon, J. L.	189
Dreer, H. A.	195
Elliott B. A. Co.	187
Fassett, F. E. & Bro.	189
Faxon M. B.	195
Fisher Bros & Co.	195
Flak Chas. H.	189
Fulweiler P. C.	194
Garden Publishing Co.	194
Gardner Jno & Co.	194
Garfield Park Rose Co.	189
Gibson J. C.	194
Graham Mrs. F. A.	191
Greene W. W. Son & Sayler.	191
Griffith, Jas.	195
Griffith, N. S.	195
Hales, H. W.	192
Hallock, V. H. & Son.	193
Hammond, Ben.	192
Hammond & Hamer.	189
Hartland W. B.	193
Herendeen Mfg. Co.	200
Herr, Albert M.	195
Hill & Co.	192
Hippard E.	192
Hitchings & Co.	200
Hooker, H. M.	198
Horan, Edw. C.	189
Hoyt B. D.	196
Hudson John M.	193
Hughes E. G.	196
Ives, J. H.	198
Jewett Z. K.	195
Johnson & Stokes.	198
Keenan T. F.	191
Kennett Bros.	189
King Jan.	193
Kramer I. N. & Son.	191
Krick, W. C.	191
Leing John & Son.	195

La Roche & Stahl	189
Laurence J.	191
Leach Bros.	192
Little W. S.	195
Lockland Lumber Co.	195
Low Hugh & Co.	196
McCarthy N. F. & Co.	189
McFarland J. Horace	191
Maitre B.	193
Marc Gabry & Co.	197
Mathews, Wm.	195
Merrick, A. T.	195
Motte Henry.	195
Michel Plant & Seed Co.	195
Miller, Geo. W.	191
Munro Geo.	190
Murphy C. H.	192
Oelschig A. C.	192
Pennoek Chas. E.	193
Pierce Butler & Pierce	192
Plenty, Josephus.	192
Quaker City Mch. Works	198
Reed & Keller.	198
Reineman A. E. & Bro.	194
Renard Jos.	192
Riechers F. A. & Sohn	194
Rohrer J. A. & Sons.	194
Ross & Milling.	196
Sander F. & Co.	195
Sargent W. E.	194
Schlechter H.	195
Schulz Jacob.	187
Scollay John A.	200
Serdan W. F.	192
Siebrecht & Wadley.	195
Sipple Oupile & Co.	199
Sitarsina, Wanda.	197
Smith David.	200
Smith George.	192
Smith Wm. H.	194
Smith & Smith.	198
Spooner, Wm. H.	195
Star Chas. T.	192
Steffens N.	197
Stewart, Wm. J.	189
Strauss C. & Co.	189
Studer N.	196
Thompson Mrs. J. K.	194
Thorpe John.	192
Tritschler M. & Son.	194
Tuttle Sidney & Co.	197
Van der Schoot & Son	195
Vaughan, J. C.	191
Weathered, Thos. W.	200
Weich Bros.	189
Whitfin Pottery Co.	193
Wilks S. Mfg. Co.	199
Williams H. W. & Son.	195
Wisconsin Flower Ex.	189
Widbold Geo.	196
Wood Bros.	191
Young, Thos. Jr.	189

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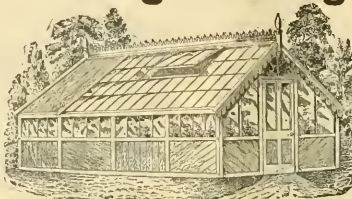
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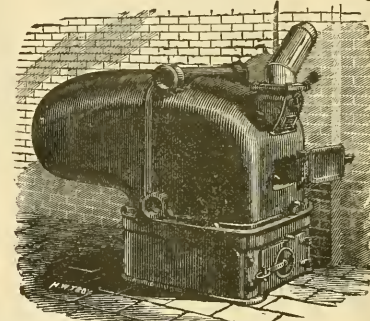


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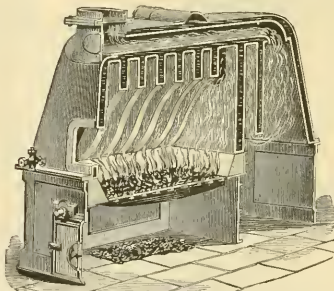
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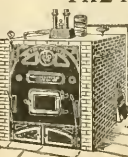
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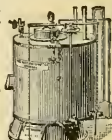
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Vol. V.

CHICAGO AND NEW YORK, DECEMBER 15, 1899.

No. 105.

THE AMERICAN FLORIST

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SOCIETY OF AMERICAN FLORISTS.

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CONTENTS.

New York notes and comments	201
Cincinnati exhibition	202
Chrysanthemum Ada Spaulding (illustration)	202
Nomenclature	202
Education wanted	204
Education	204
Experimental greenhouses	204
Trade exhibitions (with illustration)	205
Gladioluses	205
Deciduous azaleas	205
Roses—seasonable notes	205
Roses coming blind	206
Rose Souvenir de Wootton	206
Cosmos bipinnatus	206
House of Souvenir de Wootton (illustration)	207
Sphagnum for plants	208
The Marguerite maggot	208
Carnations—handling the young plants	208
Carnations—a new pest	208
Handling young carnation plants (illus)	209
Burned sods	209
Notes from Oyster Bay	209
Orchids—Dendrobium nobile	209
Caterpillars and cockroaches	210
Greenhouse work	210
Gardenias	210
Hot water in 2-inch pipe	210
Raising hardy plants from seed	210
Leaves of advice from a limb of the law XI	211
William J. Stewart (with portrait)	211
New York	211
Catalogues received	212
News notes	212
The seed trade	214
News notes	214
Fumigating	214
Method of glazing	214
Heating	214
Spider fly	216
Indianapolis	216
Washington	216
St. Paul	220

SUBSCRIPTIONS for the AMERICAN FLORIST may be left with any of the following:

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New York Notes and Comments.

The great intercollegiate foot ball match was just in time to clean up the last straggling chrysanthemums. All New York seemed afflicted with a new species of yellow fever for a couple of days, and yellow flowers were as much in demand as yellow ribbon. Rather fortunate for the florists that Princeton came out on top, for it would be hard to find a flower just the right color for Yale.

At a recent visit to the Flushing Nurseries of the John Henderson Co., their climbing Perlees Jardins was noted with a good deal of interest. The blooms are large, seemingly a trifle fuller in petals than the ordinary Perle, and well colored; it climbs like a Nid, and appears a strong grower. The specimen plant is a large one, though now cut back for stock.

At this place, and also at J. H. Taylor's, of Bayside, stakes are almost entirely abolished, their place being taken by galvanized iron wire. The wires are fastened to cross pieces above and below, on the middle benches; on the low side benches they are fastened to the rafters, being sloped forward at the same angle as stakes. The many advantages are easily seen. The wires are very much cheaper than stakes in the first place and they will last for an indefinite time; they afford no harbor for insects, and there is literally no obstruction of light, a very important consideration during such a season as this. Mr. Taylor uses these wires with carnations as well as roses; the plan is highly favored by most growers.

Mme. Hoste was seen in good condition at the Henderson nurseries; Mr. Anderson is enthusiastic over it. There can be no question of its beauty, it is full and shapely, and the clear primrose color is most attractive. It appears to flower very profusely, and at present the flowers seem to sell very well. The foliage is certainly very distinct, leaflets rather small and clear cut, color a bright dark green. The only doubts expressed about it are whether the color is distinct enough to hold favor, but there is no other good trade rose of the same clear pale yellow, and we usually find that color has less to do with the popularity or value of a rose than such qualities as size, fragrance and durability. Perhaps we ought to put durability first, for many otherwise good roses are comparatively useless for lack of lasting qualities.

Mme. Falcot is grown at Flushing; it does not seem to hold a front rank in general favor, but its apricot tinge is often admired. Sunset, as seen here, was very fine and well colored. Mr. Anderson said that he found his stock varied so much in tint that he kept discarding all the lighter flowered plants until he got the right tint, which is unquestionably a distinct rose.

Chrysanthemums were over, but among a few belated ones Mr. Anderson pointed out an interesting sport from Mrs. Chas. Carey, which will be remembered as an incurved white, of moderate size and shapely form. The sport is a clear bright pink, unquestionably a very useful flower. The difference in color is quite startling, for the flower retains every peculiarity in shape of the parent. Mrs. Carey does not seem so much grown as many other white varieties, but it would really seem more useful generally than the very large coarse flowers; it can be compared to other flowers without disadvantage, and it is very prolific.

Another very late white chrysanthemum is Mont Blanc; it is a very large flower, straw colored on first unfolding, but pure white when mature. The only trouble is that the bees will not let it alone, and they are apt to spoil the flowers.

At J. H. Taylor's, Bayside, a fine sight was afforded by a houseful of Cypripedium insignis, 250 plants in full bloom. They were all a fine variety, thoroughly well grown, and the effect on entering the house was really beautiful. Some say that steam heating does not suit orchids, but certainly there was no fault to be found with the effects here. Mr. Taylor had been cutting quite freely for Thanksgiving, but expected to keep the majority of these flowers for the holidays.

As chief white carnation, Mr. Taylor grows Silver Lake, and regards it very highly. Its color is good and it has the great advantage of opening quickly; some of the finest white carnations take so long to open properly that their trade value is materially lessened.

Among roses, Mr. Taylor finds Meteor a decided success. Really, it seems to put Jacqueminot out of sight, with its glowing color, velvety texture and fine shape. I believe the first impression was that it would be seen at its best in the summer, but, as seen at Bayside, it is full of promise for winter use. It throws up strong shoots from the bottom, like most hybrid teas, and the blooms are borne on good long stems. The Jaec has not seemed to be of very much account lately, so if Meteor behaves well it will be a favorite.

Mr. Taylor was very fortunate with Mermet, in spite of the season, and he is full of praise for Papa Gontier, which does very well with him. He adopts a similar plan to Mr. Roehrs with his hybrids, planting them in boxes. Mr. Taylor chooses a long, narrow box, in which he can put four plants in line; they are more readily handled than a larger size.

Complaints of the very bad season are prevalent. Some growers complain of losing 50 per cent of their carnations in the open ground, others report the loss of their entire stock. The inability to properly ripen the wood has entailed

large loss in all roses; a good deal of ill luck is reported in hybrids. Trade begins to look up in the beginning of December, but November was a most discouraging month. People don't seem to buy flowers in wet weather, and an average of four rainy days a week grievously affected the retailers. Prices began to improve in December, and we expect a fairly good holiday trade. Prices may not be unusually high, but there is hardly likely to be a glut of flowers.

EMILY LOUISE TAPLIN.

Cincinnati Exhibition.

The chrysanthemum exhibition by the Cincinnati Florists' Society far surpassed expectations, and proved a financial success, the first financially successful exhibition ever given in this city, and the society may well feel proud of its first effort.

The largest exhibitors of plants were Fred. S. Walz, R. Witterstaetter, John Fries and Frank Huntsman.

Among the competitors in cut flowers and floral work, were the Oakley Rose Houses, B. P. Critchell & Co., Cincinnati Floral Co., J. A. Peterson, R. J. Murphy, A. Sunderbruch & Son and J. J. Crnsman of Clarksville, Tenn. J. A. Peterson carried off 1st honors for best 100 cut blooms of chrysanthemums, A. Sunderbruch & Son, 2d, and R. J. Murphy, 3d. In best table designs B. P. Critchell & Co. were awarded 1st, their piece being a large canopy, the underside beautifully worked in Perles, La France, Brides, Bennetts and adiantum leaves, and suspended above a large mirror. The first premium Bride's bouquet shown by Frank Huntsman, was composed of Bride buds with their own foliage, tied with very heavy white silk ribbon.

A very handsome display of orchids anthuriums, pandanus and adiantums was made for exhibition only by J. T. McFadden. A table of cut orchids and chrysanthemums, by Pitcher and Maunda, of Short Hills, N. J., also attracted much attention. Cut chrysanthemum blooms of unnamed seedlings, exhibited by John Thorpe, of Pearl River, N. Y., were considered very fine. M. A. Hunt, of Terre Haute, Indiana, displayed a very handsome bunch of Duchess of Albany Roses. The vase of 25 roses, newest varieties, taking 1st premium, shown by B. P. Critchell & Co., was composed of Hostes, Woottons and Albanys. A fine collection of cut chrysanthemums was entered for exhibition only by J. S. Forster, Evanston, Illinois.

The greatest interest was manifested in the contest for the C. H. & D. K. R. monogram. There being no limit to size, one exhibited by T. W. Hardesty had to be cut in two in order to get it into the hall, and would have taken second had it been completed on time. The one taking first, shown by A. Sunderbruch & Son, was composed of bright blue immortelles for background bordered with white carnations, the raised letters C. H. & D. were two feet in length of Niphetos buds, the whole measuring 5 x 8 feet and resting on an easel 10 feet high, on the right of which was tied a large bow of old gold ribbon.

The exhibition closed with an auction sale, some of the plants bringing enormous prices. One plant of Mrs. Aphileus Hardy, in 8-inch pot, donated to the society by Frank Huntsman, brought \$10.

The judges were J. M. Jordan, St. Louis, Edwin Lonsdale, Chestnut Hill, Philadelphia, and J. M. Gasser, of Cleveland, Ohio.

Frank Huntsman has engaged the services of a private policeman to watch that vase and silver cup in his case on the sidewalk.

R. Witterstaetter has his list of varieties of chrysanthemums that he is going to grow for next fall already made out.

Following is the list of awards:

Mabley & Carew premium, \$100 in gold, for best collection of 25 plants, not less than 15 varieties, 1st \$50, Frank Huntsman; 2d \$30, R. Witterstaetter; 3d \$20, F. S. Walz.

Jno. Church & Co., premium, \$50 cash, best 10 yellows, not less than 5 varieties, 1st \$25, Frank Huntsman; 2d \$15, Fred. S. Walz.

Best single specimen yellow, 1st \$6, R. Witterstaetter; 2d \$4, Frank Huntsman.

Gibson House premium, \$50 cash, best 10 pink, not less than 5 varieties, 1st \$25, Frank Huntsman; 2d \$15, Fred. S. Walz.

Best single specimen pink, 1st \$6, Frank Huntsman; 2d \$4, R. Witterstaetter.

Adams Express Co. premium, \$50 cash, best 10 white, not less than 5 varieties, 1st \$25, Frank Huntsman; 2d \$15, R. Witterstaetter.

Best single specimen white, 1st \$6, Frank Huntsman; 2d \$4, R. Witterstaetter.

Sam C. Cox & Co. premium \$50 cash, best 6 new varieties 1888, 1st \$25, Frank Huntsman; 2d \$15, R. Witterstaetter; 3d \$10, Jno. Fries.

C. L. Mitchell premium, \$100 cash, best 36 plants, not less than 20 varieties, Frank Huntsman.

E. G. Hill & Co. premium, \$25 cash, best 12 varieties, American origin, 1889, Frank Huntsman.

Seedlings, judges decided they were not worthy of premiums, and would like to have them try another year.

Standards, 30 inches and over, 1st \$20, R. Witterstaetter; 2d \$15, Fred. S. Walz; 3d, no entry.

Best single specimen, 1st \$10, R. Witterstaetter; 2d \$5, Fred. S. Walz.

Harm's Palais Royal premium, handsome vase, value \$40, best 6 standards, 6 varieties, not less than 20 inches, Frank Huntsman.

Cut blooms of chrysanthemums, best 100 blooms, not less than 20 varieties, 1st \$50, J. A. Peterson; 2d \$30, A. Sunderbruch & Son; 3d \$20, Robert J. Murphy.

Begonias, best 12 plants, Rex varieties, 1st \$10, Corbett & Wilson; 2d \$5, A. Sunderbruch & Son.

Roses, cut blooms, best 12 American Beauties, 1st \$10, C. L. Mitchell; 2d \$6, Frank Huntsman.

Best 12 Marchal Niels, 1st \$6, Fred S. Walz; 2d \$4, B. P. Critchell & Co.

Best 12 Cornelia Cooks, 1st \$5, Fred S. Walz.

Best 12 Brides, 1st \$5, Frank Huntsman; 2d \$3, C. L. Mitchell.

Best 12 La France, 1st \$5, A. Sunderbruch & Son; 2d \$3, C. L. Mitchell.

Best 12 Catherine Mermets, 1st \$5, J. W. McFadden; 2d \$3, C. L. Mitchell.

Best 12 Bennetts, 1st \$5, C. L. Mitchell; 2d \$3, Frank Huntsman.

Best 12 Papa Gontiers, 1st \$4, C. L. Mitchell; 2d \$2, J. W. McFadden.

Best 12 Perle des Jardins, 1st \$4, C. L. Mitchell; 2d \$2, Frank Huntsman.

Best 12 Niphetos, 1st \$4, J. W. McFadden; 2d \$2, Frank Huntsman.

Best vase 25 blooms, newest varieties, 1st \$15, B. P. Critchell & Co.; 2d \$10, Frank Huntsman.

Best bridal bouquet, not over 15 inches in diameter, 1st \$10, Frank Huntsman; 2d \$6, Cincinnati Floral Co.

Best hand bouquet, not over 15 inches in diameter, 1st \$10, Frank Huntsman; 2d \$6, Cincinnati Floral Co.

Best 6 corsage bouquets, 1st \$10, Frank Huntsman; 2d \$6, Thos. W. Hardesty.

Best piece of artistic floral work, appropriate either for a dinner, ball, reception or wedding and not to be over 30 inches in any dimension, 1st \$25, B. P. Critchell & Co.; 2d \$15, Frank Huntsman.

Best flat basket, not over 18 inches, 1st \$10, Frank Huntsman; 2d \$6, A. Sunderbruch & Son.

Best handle basket, not over 30 inches high or 18 inches long, 1st \$10, Frank Huntsman; 2d \$6, A. Sunderbruch & Son.

Best vase basket, not over 24 inches high or 12 inches in diameter, 1st \$10, A. Sunderbruch & Son; 2d \$6, Frank Huntsman.

Best C. H. & D. monogram, 1st \$50, A. Sunderbruch & Son; 2d \$25, B. P. Critchell & Co.

Best 15-inch wreath, 1st \$6, Frank Huntsman; 2d \$4, A. Sunderbruch & Son.

Best 24-inch cross, 1st \$6, Frank Huntsman; 2d \$4, A. Sunderbruch & Son.

Best 26-inch anchor, 1st \$8, Frank Huntsman; 2d \$5, A. Sunderbruch & Son.

Best 24-inch pillow, 1st \$10, Cincinnati Floral Co.; 2d \$6, A. Sunderbruch & Son.

Frank Huntsman taking the largest number of first premiums was awarded the DuRme & Co. sweepstake premium, a silver cup. N.

Chrysanthemum Ada Spaulding.

Our illustration shows a vase of blooms of this chrysanthemum which has recently attracted so much attention and which has received so many distinctions at this year's exhibitions. Among the prizes taken was the Harrison cup in which this variety was successful over seventeen competitors as the best undisseminated seedling of American origin.

The flowers are large, soft pink on the outer petals crowning to white. The pink has very little of the lilac tinge seen in so many chrysanthemums. Our illustration shows the form and character of the flower distinctly, being made direct from a photograph.

Nomenclature.

The criticism written by Mr. Taplin concerning the article upon nomenclature may be necessary, yet it is possible that the purpose of that article has been overlooked by him. Perhaps if it should be read again the critic will notice that the article admits the failure of the "committee upon nomenclature." That the committee had not accomplished anything to speak of.

This admission was made in good faith, hoping that some good would result from the confession of failure. It was not supposed that any one would imagine that the writer was asking for information concerning the work of the committee, for he distinctly admits the inefficiency of past attempts. But though this is so, no member of the committee is ready to acknowledge that the fault, or failure, is owing to lack of desire or effort on their part.

Members of the committee upon nomenclature are in no condition to assume detective work. When that committee was appointed the invitation was general for all to communicate with the chairman of the sub-committees and speak as to any facts in their possession concerning false nomenclature, fraudulent or otherwise. But according to the writer's knowledge there has not been one re-



VASE OF CHRYSANTHEMUM ADA SPAULDING.

sponse. General inuendoes accomplish nothing. What is needed are facts; facts upon which some action can be taken.

Mr. Taplin instances one case of fraudulent nomenclature. Why did he not impart the facts to the committee? Just such cases that the members wished to obtain knowledge of. As for one member praising an individual guilty of fraud, the favorable notice must have been given in ignorance of anything to the contrary. The committee was in earnest in its wishes to ferret out knavery and sift the false nomenclature from the true.

But the work is beyond them. Unsupported and unaided they are powerless to effect any permanent result. The question still remains where it was. Still open for discussion. Still waiting a practical solution. The pages of the *FLORIST* are open for suggestions and facts.

In order that some good might be ac-

complished, and to prevent the cessation of this agitation, it was suggested by the writer that the National Society, by the consent of all, be the authority upon nomenclature for this country. There was no inquiry as to who made Prof. Reichenbach an authority, but who made him the authority. We are all aware that it was by common consent because of his learning and investigations. But why should it be thought necessary that the florists of this country should be obliged to defer to some European authority the vexed questions of nomenclature that trouble us here. If it is a fact that we have no men here able to decide these questions for us, then all the more reason that a higher scientific education for all who are desirous of availing themselves of it, should be the thought of the progressive men of the day. Let us make the society the authority for this

country. Surely the society can find among its members a sufficient number fully competent to decide all questions upon nomenclature. As it is now there is no system. There is no authority to which we can appeal. And it is to plead for an American authority for Americans that these suggestions are made.

As regards the word "Scabiosa," the writer was not in ignorance of its derivation. It was this he was speaking of, and not the meaning of the word itself. Brought forward merely as an illustration of the want of euphony in much of our nomenclature, and of the hap hazard way in which plants are sometimes named.

Upon this subject discussion is invited, but controversy is deprecated. Neither can personalities be of any advantage. The question is a vital one and should concern us all. If we fail in one direction

it may not be our fate to do so in another. If there was need to broach this subject there is need to continue it. Palm nomenclature, according to some of the gentlemen who devote their attention more particularly to the cultivation of these plants, is in a very mixed condition. It must be time that these matters should be straightened out, and who can do it better than a committee appointed by the National Society, invested with its authority, supported by its influence and reimbursed from its funds for the labor and expense involved? Let the old committee by all means be discharged, or give it more extended support. A subject for the consideration of the executive committee at their next meeting.

A. E. WHITTLE.

Education Wanted.

We read with great interest and with the expectation of learning how and where to begin to acquire an education that will help those who have not been fortunate enough to get one before or while serving their apprenticeship. I have scarcely done any other work than that in the garden, and have had plenty of practice pertaining thereto; from the labor that requires most all muscle and very little brain to the more careful and delicate work of the full fledged cultivator among his exotic pets, and finally arrived at the long coveted position of gardener on a private place.

But all this practice does not satisfy, nor answer all purposes. There are some things our experience will not give us. And now we have reached that point that we feel in a cramped condition, as it were, not bound, and want more room. We desire to grow mentally, but what shall we read is the question. And we do not want to experiment on this vital point for fear we should take up that which would be too strong and sicken of it, and our ambitions should die. We all know it will not do to pot off a cutting into a large pot, neither will it do for one that knows nothing of botany or entomology or geology etc. to take up advanced works on these subjects.

Where shall we begin? Is there not some one interested in the great army of young florists and gardeners, that will lay out a proper course of study that will cover four years or more? For there is many a one that would gladly procure the proper books if they only knew what they were and where to get them.

Could there not be a committee chosen at the annual meeting of the S. A. F. to select the proper books and have them for sale at the office of the AMERICAN FLORIST. Or better still select a committee that can devote enough of their time to lay out a course of study to cover four or six years, and at the end of every year send out questions upon the studies for the year, and if 70 per cent can not be answered do not sanction the study of the following year's studies. Or send them examination papers for the same until they have sent in 70 per cent of the questions properly answered. To remunerate the committee for their labors and to meet other expenses connected therewith charge a small fee for membership, and a small per cent on the books sold to students. Let something be done for those that can not go to a school or college for instruction.

One and all that are interested in having the profession counted with other professions (for such it is, the word trade does not answer for its length, breadth and height), take the course of study

though he be a graduate from the college, or one that thinks he has matured himself in his own little world. The more that take hold of it the cheaper it will come, and in a degree take the place of a college course and help those who are anxious to improve their mental condition.

J. H. H.

Education.

The higher education of gardeners is a subject full of problems and suggestions. It might properly be divided into three parts, practical, theoretical and both combined. Men may regard the matter from different points, according to the early impressions they have received and the circumstances that shape their views. A man having a good practical training may be very apt to consider a scientific one of secondary importance, while others having been favored with a college education are very liable to hold themselves so superior as to make the acquirement of thorough practical experience a matter of less consideration. I think it is almost impossible to combine both the practical and theoretical training in a college establishment to such a degree as is desirable. Even if possible, the benefits could only be obtained by a comparatively small number.

Where then might properly a start be made to awaken, to encourage and foster the ambitions toward a higher state of usefulness in the rising generation of horticulturists? In the conditions and circumstances as we have them or with such as are suggested by the establishment of higher institutions? Probably with most success in the former. There are many ways open to that end.

Some men are born in all conditions of life to be leaders of their fellows in their respective vocations, men competent in themselves to rise step by step, by their own energy, to eminence. But most of us require to be led, to be guided and directed on our way, and he is fortunate indeed, who may receive in his early manhood years the counsel of a wise, judicious instructor, the guidance of men of ripe experience, not only in the line of business one may elect to follow, but also in the wider, but not less important sphere of everyday life, in the social and business relations of fellow workmen, of employer and employee. For every noble calling may aspire to be a science, horticulture certainly is, but I believe it was Carlyle who said, the greatest of sciences is good, sound, common sense.

Mr. Alfred E. Whittle in his excellent article in the FLORIST of October 15, mentions as one of the means of improving the minds of young gardeners, that employers should provide for them a suitable room, convenient and attractive, with proper reading matter. This very thing the late Mr. Buist did and certainly to his credit. This matter can not be too strongly urged upon considerate employers.

Consider how forlorn a young man may feel who has in him the desire to use his evening hours to best advantage, to spend them in profitable reading in a fairly comfortable room, when he is denied that luxury. Well, he may buy himself a candle and find a snug place in the greenhouse, or he may go to loafing with the majority, or, yes, he may find refuge in the ever-inviting saloon. That's about the rule, isn't it? True, an employer may provide for his workmen to the best of his ability and receive at times ill thanks for his efforts, but he has the means to correct that, to weed out the unruly, and will do so if he wishes to

keep men of some character, and these assuredly will in one way or another show their appreciation of his kindness.

Another suggestion may be offered. In all large trade centers there are a goodly number of employers and many more workmen. Of necessity the establishments are often widely scattered. But might not a city, for instance, Philadelphia, be divided into districts for a purpose. Might not the bright men of each district consult together and with their workmen and advise and decide to establish a class, to meet perhaps once a week at some centrally located point for a course of instruction, to put inquiries concerning the points of the same, and for exchange of opinions and experience. There are doubtless enough young men to be found eager and willing to take part therein, to pay their share toward securing such benefits. Men of eminence could undoubtedly be found at a reasonable salary to give the most valuable aid and direction to their minds. If such a class were formed, say by January, instructions and lectures given weekly on different topics, that class might anticipate with the keenest pleasure the coming of spring, to use their Sunday afternoons for botanizing excursions. Happy results should certainly follow. Has not many a young person within him good and ample, but latent capabilities, and ability to develop them by himself if once aroused, provided he can acquire the methods and principles of independent inquiry through a course of practical and theoretical instruction.

Furthermore, if such a system were once established journeymen gardeners with any ambition located in places where the formation of a class is impracticable, might obtain from time to time employment in cities favored with such opportunities and share in their benefits.

I worked once for a firm, the head of which received his education, practical and scientific, in establishments and a university respectively of the highest renown in Europe. It was proposed by a relative of mine to send me to college, but the chief would not condescend it, saying I would pull along well enough without it. This goes to show that he placed no very high estimate upon a college course. Yet how glad I should be had I had a chance to have opened to me ways and lights of investigation that have ever been closed to me.

In our profession it is given to but few to gain riches by their experience or their business sagacity, hence we should seek to gain that intrinsic worth and gratification which horticulture perhaps more than most other occupations of life offers to its devoted students.

Villa Nova, Pa. JNO. W. MERTZ.

Experimental Greenhouses.

At the Buffalo meeting of the Society of American Florists considerable interest was manifested in the essay by John Thorpe on "The Establishment of an Experimental Garden," and a committee was appointed to obtain an appropriation from Congress for the establishment and maintenance of one.

Even if success crowns their efforts a considerable time must elapse before any results can be obtained from it, and in certain lines, as was suggested by our Mr. Knapper, the experiment stations now existing in the various states can render assistance, many of them having in fact begun work in several of the lines mentioned by the essayist.

The work that can be expected of them however, will be comparatively slight, as



VIEW IN THE STORE OF J. H. SMALL & SONS, WASHINGTON D. C., ON THE
OCCASION OF THEIR RECENT EXHIBITION

the \$15,000 per year received by each station is divided among five, six, or more departments, and as being of more general interest the horticulturist is expected to devote most of his attention to the fruits and vegetables.

The horticultural department of the experiment station of this state is as well equipped for work in this line as any in the country, and the experiments now under way not only include the lines of work mentioned by Mr. Thorpe, but extend to others that will, we believe, be of equal or greater value to florists.

We have just completed two green-houses for experimental work, and hope to use them to the advantage not only of the florists but of horticulturists in general. The houses themselves are designed to be more or less experimental, furnishing among other things means of testing steam against hot water heating, overhead against under bench piping, various methods of ventilation, ventilating machines, glazing and glazing materials etc. In their construction the leading methods and machines have been used and the houses are nearly ready for trial.

If any florist to whose eye this may come has or knows of any method, machine or appliance that he deems worthy of trial we will gladly arrange for it in competition with the others. We shall be pleased also to receive for trial any new species or varieties of plants and if we can in any way supply the wants expressed by the committees of the S. A. F. on nomenclature and boilers, such assistance will be gladly accorded.

These houses are heated one with a steam and the other with a hot water heater, manufactured by one of the leading firms in the country, and we shall soon commence a comparative test of the two. At the expiration of this test we shall be pleased to run either of them against those of any other firm.

My principal object in writing at this time is to call the attention of the advocates of each of the systems (steam and hot water) to the arrangement of the

pipes and the amount of radiating surface in each house, and to ask them to express through the columns of the *FLORIST*, or to me personally through the mail, their opinion as to the fairness of the test as now arranged.

The houses are span roof, each 50x18 feet inside with about 1,100 square feet of glass exposed. The side walls are of wood and extend two feet above ground. They are built in as tight and warm a manner as possible, a section being as follows, from the outside: block siding, heavy paper, sheathing, six inch airspace, paper and ceiling; the roof is of 2½x1½ inch sash bars, with double strength 10x12 glass laid with the ten inch sides on the sash bars and is as tight as can be made.

The houses extend north and south, and as our cold winds are from the southwest the west house heated with hot water is most exposed. The force of the wind, however, is broken by other buildings and large evergreens, so that the difference from exposure will be very slight. The steam boiler is exactly like the water heater, each having a magazine and 70 feet of heating surface.

The steam house is heated by 400 lineal feet of one and one half inch pipe. They are arranged with two mains over the middle bench and with six return pipes, two under each of the benches. The pipes are properly supplied with valves and vents. They have a slight fall throughout their length and at the lowest point are two feet above the waterline in the boiler.

The hot water house has the same amount of one and one half inch pipe in the same positions as in the steam house, and in addition has a two inch pipe on each side, the arrangement being as follows: On each side of the house a two inch flow pipe on the legs of the bench next the walk, and two one and one half inch returns under the bench. In the center are two one and one half inch flow pipes over the bench, and each of them has a return pipe of the same size under the bench.

The radiating surface of the pipes in the steam house equals 200 square feet, and in the hot water house 275 square feet. The boilers have been fired up and work perfectly, the pipes in both houses warming very evenly.

Before entering on a thorough test of the two systems I shall be pleased to have the opinion of such of the readers of the *FLORIST* as have had experience with both methods, regarding the fairness of a test as now arranged, together with any suggestions as to changes in arrangement or amount of pipe as will in their opinion be necessary to secure a fair trial.

L. R. TAFT.

Agricultural College P. O., Mich.

Trade Exhibitions.

The plan some florists have adopted of having occasional "openings" or free exhibitions of plants and flowers at their stores on occasions when flowers are in good supply can not be too highly commended, provided of course that the exhibition is a creditable one, and as a suggestion in this direction we give herewith an illustration from a photograph of the interior of the store of J. H. Small & Sons, Washington, D. C., on the occasion of a recent trade exhibition of this character.

Nearly every plant may be identified in the engraving, hence any description is unnecessary. Of course this exhibition was given in the chrysanthemum season—about the middle of last month.

Exhibitions of this kind are of great value as they unquestionably stimulate an interest in flowers and are undoubtedly worth many times the trouble and expense as advertisements of their business to those making them. While all have not the advantage of such a large and handsome store as Messrs. Small & Sons, the same idea can be utilized by all and be made proportionately valuable to them.

Gladioluses.

"November here (in New Zealand) corresponds to May in England," is the headline of the Garden Department of the *Otago Witness* just to hand. And this has suggested to me something about gladioluses. The great mass of hybrid forced gladioluses appear in late winter and towards spring and never at Christmas, and a good deal of this is owing to the fact that old bulbs won't keep over well till September or October, and summer-grown bulbs won't be ripened and rested enough to start kindly and vigorously into fresh growth if planted in early fall. Now, why couldn't the good people of New Zealand come to the rescue and pour in upon us any amount of thoroughly well ripened bulbs in summer? Of course there would be many drawbacks—the long voyage, crossing the tropics, heavy freight, duties and other expense, and after all selling them for most nothing. But it's worth trying. W. F.

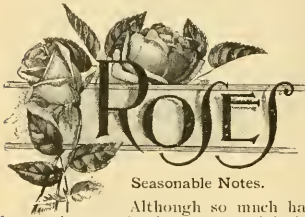
Deciduous Azaleas.

We had an importation of new, hardy, hybrid azaleas a few weeks ago, and the plants were nice and stocky, well rooted and well budded, but as a good many had mollis blood in them I thought the middle of November was a little too late to plant them out and trust them to the tender mercies of a searing winter, so I potted them and plunged the pots in the ground in a deep cold-frame. After letting them stay there for a couple of months I will bring them in and let them

bloom in the greenhouse, and then plant them out about the first of next May. Flowers are not as abundant in February and March as they are in May and every little helps.

W. F.

Long Island.



Seasonable Notes.

Although so much has been written and said about the injuries to plants in flower resulting from the burning of tobacco in greenhouses, still the cry is frequently heard: What can be the matter with my roses? the buds are all coming deformed and the light ones, such as Niphetos, Bride, etc., are brown instead of white, particularly the petals next to the outside row. To all having such I would advise discontinuing fumigating and apply Mr. Palmer's method as described in the September 1 issue of *AM. FLORIST*, or if that be impracticable then use the stems on the walk, or under the benches on the pipes, or any other suitable place; but do not place them on the soil in which the plants are growing as it will certainly injure the plants to do so. Formerly we could burn the stems in the greenhouses, if careful, without any injury to plants or flowers, but not so now. The same adulteration (principally salt petre) used in manufacturing the tobacco will injure alike, whether laying on the soil or burned in the houses. Can not some enterprising manufacturer get up a cheap way of making tobacco juice so that it can be evaporated in the same way it is done in France and England? It would soon commend itself to the trade throughout the country, as there would then be no need of having a lot of untidy looking stems laying round the houses. Besides, its economy must be something considerable for large places.

Now that we are having really dark wintry days every care should be taken to utilize what sun light we do get. This is of utmost importance in keeping the plants healthy, particularly in the eastern states where we have had so much cloudy weather the whole season through. Our western brethren I hope have fared better in this respect. With so much moisture in the air it has been almost impossible to keep clear of mildew all the fall, and now the winter is here with the wood all very soft, hence the greater reason for making the best of sun light possible. Keeping the temperature down at night will help somewhat, but the great point is to give all the air possible when the sun shines, without causing a draught. During such weather as we are now having extra care should be exercised in watering, as it is very easy to get the soil too wet, and should that occur the plants will receive a severe check, and the loss of root action caused thereby leaves the plants much more subject to the ravages of red spider etc. Black spot will also have the best possible chance to assert itself under such conditions. Careful watering at all seasons is one of the most important things to attend to, but especially so at this season of the year. In some varieties, such as Bennetts, the roots always have a tendency to come to the surface when the plants are growing

well, particularly in shallow benches. Where they are doing so a very thin mulching of well decomposed cow or sheep manure will greatly help the plants to produce fine buds and is much safer to apply than liquid manure, but under no circumstances should it be put on more than half an inch thick at a time.

For the proper ripening of hybrids this has been a particularly unfavorable season. For those who grow them in pots and depend upon ripening them off in the open air it has in the eastern states been almost impossible to get the wood in the proper condition. But now that frost has come the plants can be subjected to its influence for a short time and they are ready to prune and start into growth. Where really fine flowers are the desideratum they should be started in a very cool temperature so as to ensure root action at the same time with leaf action. Where they are planted in benches inside the greenhouses the sash should now be put on to prevent their getting too much water. In starting them calculation should be made as to the time the flowers are wanted. At this season it takes from 11 to 13 weeks to get them into flower, from the time of starting, varying of course somewhat according to the varieties. Jacqueminot, Magna Charta and other early varieties will take less time than Baroness Rothschild, Ulrich Brunner etc. In pruning these it is best to prune back to good solid wood and prominent eyes; all soft shoots such as have been produced late in the season should be cut away altogether, as they only produce strong wood without any buds and rob the buds on the other parts of the plants.

JOHN N. MAY.

Roses Coming Blind.

At this season of the year several varieties of tea roses such as C. Mermet, the Bride, Mme. Watteville, etc., are very apt to fail to set their buds. The principal cause of this is want of sun at a critical time during the period the new growth is being formed, but it occurs most frequently on shoots that are comparatively weak and where the temperature is kept a little too high at night and a corresponding deficiency of air during the day. Therefore to avoid getting blind shoots, as they are usually termed, keep the houses as near temperate as possible at night and give all the air reasonable by day on every favorable opportunity; keep the plants clean and healthy, which will greatly help them to produce strong vigorous growth, the best possible preventive of blind wood.

Where the soil has become bare of mulching from continued watering and syringing a very thin sprinkling of pure ground bone covered with not more than half an inch of good fine manure will now greatly help roses that are growing freely, but avoid putting a thick coat of mulching on now as it would have just the opposite effect to that desired, namely helping the crop along. Before putting the mulching on be careful to pick up all dead leaves, &c., clean them off the plants also; this is not only important at this particular season but at all times, as all decaying leaves are only harbors for insect pests and therefore should be removed regularly and burned.

Hybrid Perpetuals: Those having these and wishing to get them into bloom for Easter should now get them pruned, cleaned, etc., ready for starting. To get really fine blooms from these it will take at this season about twelve weeks to get them in bloom from time of starting. The

earlier varieties such as Jacqs, Magna Charta, Anna de Diesbach, etc., may come in a few days less, and the later varieties such as Baroness, Ulrich Brunner, etc., a few days more.

JOHN N. MAY.

Souvenir de Wootton.

Our full page illustration gives an interior view of a house of Souvenir de Wootton roses at the establishment of C. Strauss & Co., Washington, D. C. The house is 200 feet long and contains 2,600 plants, which were propagated last April and planted on the benches in four inches of soil about July 1. The photograph from which the illustration is made was taken about October 25.

The illustration also well shows the style of construction of the modern rose house built on the most approved plan.

NEW ROSES.—We should like every rose grower who has tried any of the new roses for forcing, especially Souvenir de Wootton, Duchess of Albany and Mme. Hoste, to report to us his experience with them up to date, and the opinion he has formed as to their value.

AMERICAN BEAUTY.—Is American Beauty shy in producing good flowers this year or can it be that it is so with me alone? They are doing hardly half as well as in former years with me.

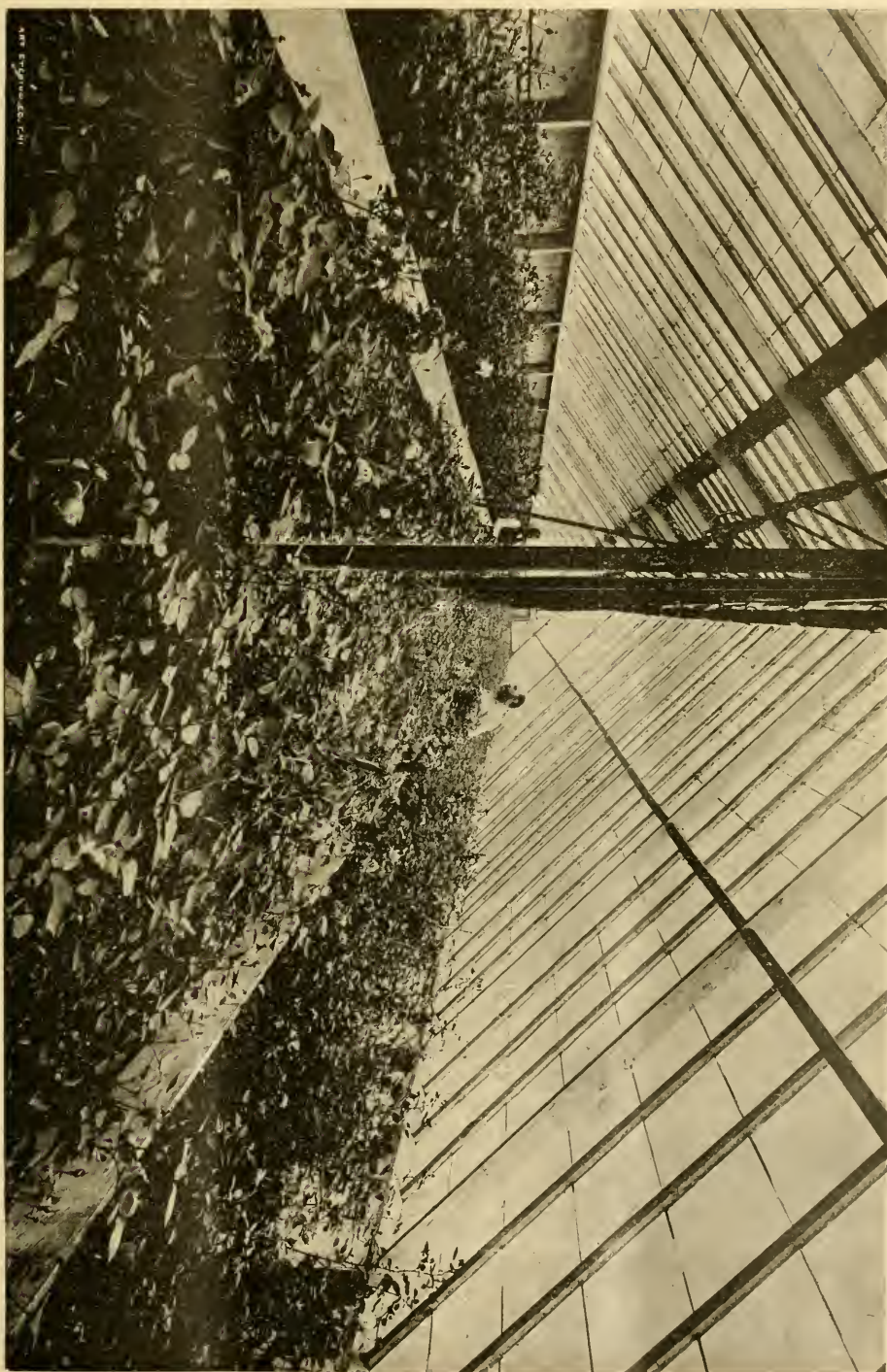
Harrisburg, Pa.

J. P.

Cosmos Bipinnatus.

For the last two years or more the flowers of this pretty annual have sold exceedingly well in late summer and fall, even after the chrysanthemums were plenty in market, and they should be grown more extensively, for the demand has been so far much greater than the supply. The seeds may be sown under glass in the house in boxes or in a hothed in early spring not later than May first, and then planted out after danger of any frost is past. They should be allowed plenty of room, at least two feet each way or more if there is land enough to spare; they will grow from four to five feet high and will make a well branched bushy plant without any trimming or pinching. The first flowers will show about the beginning of September under favorable management and will keep on flowering until frost puts an end to them. The flowers are single, daisy-like, with a yellow disk; various shades are represented from pure white to a dark shade of pink and even a rosy crimson, and last a very long time after being cut.

In our northern climate early frosts will destroy them sometimes even before they reach perfection and we can not expect a full crop of flowers if the plants are left outside. For this reason I have been experimenting a little, growing a quantity of the plants in 8-inch pots over summer and planting them in a center bed of a house the latter part of September. At the same time we dug up a number of them from outside and planted them side by side with the others. There is no serious difficulty in lifting them, for they make such a mass of fine roots that generally a good large ball will come up with the plant and if watered well after they are replanted, even shading will not be required unless the weather should be exceptionally hot and dry. There was no marked difference between both lots, size and abundance of flowers being the same; the pot plants kept on flowering a few weeks longer than the majority of the lifted plants, but considering the labor



VIEW OF A HOUSE OF SOUVENIR DE WOOTTON ROSES AT C. STRAUSS & CO.'S, WASHINGTON, D. C.

caused in potting and caring for the others over summer there was not enough difference to warrant a continuation of this plan and the lifted plants paid best in the end. I planted them in a bed which was intended for potted callas over winter and when we had to take those under cover we set them a little closer together than usual until the cosmos would be out of the way, so in reality I did not prepare or keep a place specially for the cosmos and therefore can not count the house room they occupied as an additional expense. It will not cost much to grow a good supply of them if you can only manage to give them house room for a few months.

Rochester, N. Y. JOHN B. KELLER.

Sphagnum for Plants.

There are several advantages in favor of moss over the common potting soil for growing begonias, geraniums, callas, Dutch bulbs, etc. The moss retains moisture longer than does the soil and it will not sour as readily, and during the hot weather plants growing in moss will stand several degrees more heat than those grown in earth. There may not be any great saving from the time the cuttings are struck till the plants are disposed of, still they can be grown as cheaply in sphagnum as in earth and they will give better satisfaction to the buyers as the express charges will be less and the plants look cleaner, and they can be prepared for shipment with less labor and arrive at their destination in better condition than plants grown in earth.

I am now growing callas, begonias, Dutch bulbs and other plants in sphagnum and they look as fine as, if not better, than those grown in soil. I would like to know the views of our more practical florists on this subject.

Savannah, Ga.

H. N. JONES.

[There is nothing new in growing potted plants in sphagnum moss. About nine or ten years ago a great effort was made to introduce Dumesnil's Moss—a "preparation of common moss by some chemical solution, so as to enable it to support plants wholly without the aid of soil," and it had a fair trial, but we hear very little of it now-a-days. And fertilized moss, that is moss mixed with bone meal has been extensively used as a mulching for pot plants, and a capital thing it is too to help plants that are starving in small pots and when it is not desirable to give them a largeshift. But that sphagnum moss alone is better than or as good as soil for use in potting the vast multitude of plants handled by commercial florists, is pretty forcibly answered by its rejection.]

The Marguerite Maggot.

Having had some trouble with the worm that penetrates and feeds in the leaves of the *Chrysanthemum frutescens* or Marguerite, the *Cincaria hybrida* and some other plants, I took some infected leaves of the former and placed them in a jar to await developments. In the course of a few days there appeared a number of small flies, very similar in general aspect to our common house fly, except in size, which was smaller. I then injected some tobacco smoke into the jar and the result was that they all dropped at once to the bottom apparently killed. An examination the next day proved all to be dead.

I would recommend to any one who has had trouble with the pest, in the future to fumigate at least weekly for a couple of months such plants as are liable to the attack of the insects as soon as the

plants are housed. For any one who has trouble now with the ravages of the worm I would advise carefully picking off all the infected leaves once a week for three or four weeks, and fumigate twice a week until the pest has disappeared, which should not take more than a month, but depending greatly on the amount of heat and sunshine present, which will hasten or retard the transformation of the maggot to the fly, in which state it should be destroyed before it can lay its eggs.

The treatment of an infected plant such as dusting with tobacco dust, paris green etc., to kill the worm has as far as I am informed always met with failure. Probably because it does not come in contact with the food consumed by the insect.

P. M., Jr.



Handling the Young Plants.

A very important feature in growing carnations from cuttings is to have them well rooted before disturbing them in the sand; in this respect they differ from many other plants. Verbenas for instance, are the better for being handled and potted off as soon as they show the first signs of roots, and the same may be said of many other soft wooded plants, but my experience is that carnations are an exception to the rule, for I have often noticed that the well rooted carnation cuttings when potted or boxed off will go right ahead and make at once strong vigorous plants, while those with very small roots, even if quite healthy, seem to take a long time to start, and quite often if potted off too soon the young plant seems to become hard around the base. This is particularly liable to be the case with Buttercup and other heavy wooded sorts. I should much like to hear the experience of other growers in this particular, as there seems to be considerable difference among varieties in this respect.

When well rooted and the operation of boxing or potting off is commenced, it may be said that we have fairly started out for another year's experience, consequently it is important that we endeavor to start right and so treat every young plant that it will fulfill its mission by paying for itself in the end.

Every young plant whether it is placed in a pot or in a box should be planted deep enough and firm enough to enable it to maintain a perpendicular position throughout the season, and if this is attended to at the first start it will not be difficult to carry out the plan at planting out time. The sketches which accompany this will explain my meaning better than any words I can write. It will be noticed that No. 1 represents a young plant put firmly in the ground, and deep enough to be safe from disturbing winds or any other influence which might affect its stability during its season's growth. Such a plant will go right along without stopping; all we have to do is to keep the conditions right for its growth, draw the centers out of its leading shoots when necessary, and when lifting time comes we have a plant worth looking at. With No. 2, however, the reverse is the case; that shows a young plant which has been carelessly potted in the first place,

and when planted outside it was planted so near the surface that the first puff of wind that came sent it over to one side, or as a seaman would say gave it a hunch to leeward, ready for a wind from the opposite direction to send it back again, and so on whiffing it back and forth throughout the summer, first from one side then the other. Under such circumstances we can scarcely expect a plant to amount to very much, yet it has cost just as much capital to bring it to planting out time as the other one which makes such a very different showing.

Growers who have had the misfortune to be obliged to entrust such matters to careless help will readily catch on to this idea. Not only is a carelessly planted carnation liable to be greatly retarded by the winds of summer, but a thousand accidents are liable to happen to such a plant, which one that sets perpendicularly and is well planted deep enough in the ground is quite safe from, besides a plant lolling over on the ground at an angle is pretty sure to have its stem so roasted by summer heat as to be of but little value any way.

In boxing off young carnations I have sometimes found it advisable to divide them into two or even three sizes, putting those of equal strength by themselves in one box; by this means if the weaker ones need a little different treatment towards spring it can be given them without interfering with those already of sufficient strength. Also for the same reasons it is often best to pot varieties of fine growth at once into thumb pots. Grace Wilders that I grow for my own flowering are always so treated, and I am convinced that the extra care and space is well paid for by the increased strength of the plants.

Where the young plants show the necessary size and strength it is a good plan to draw the center from each as they are potted or placed in the box, the rooting and the preparation for new growth then takes place simultaneously, the smaller ones can be treated in the same way as soon as they have attained sufficient size. Carnations, especially young healthy stock, seem to delight in a low temperature, and if after being potted or boxed we can keep them at 40° or 45° they will grow faster and make stronger and better plants than in any higher temperature. I have come to this conclusion after many years experience and careful observation.

I find by reference to the greenhouse journal that my young carnations during the last four years have been potted or boxed between the middle and last of January, and for the same period they have been turned from the houses to the cold frame from the 8th to the 20th of March, except of course in cases where new varieties or special treatment to small quantities was concerned.

It often happens here that we have very cold weather after the middle of March and especially keen cold cutting winds, but we also have some fine days with bright strong sunshine, and if we can only get the young stock out and protected during the nights and perhaps a few of the coldest days during the balance of March, the trouble is all over and we get the much needed room inside for other purposes.

H. E. CURTIS.

Paterson, N. J., Nov. 21.

A New Pest.

Mr. Andrew Washburn, of Bloomington, Ill., appears to have been visited by an insect pest which I fear has been more or less common among carnations this season.



Fig. 1.

Fig. 2.

HANDLING YOUNG CARNATION PLANTS.

The first intimation that I had of its presence was a few days after my carnations were housed, when my foreman noticed something wrong with the Grace Wilders; the extreme tips of the shoots in many cases appeared to have been singed and would finally droop down and wither away. We then noticed that many of the largest buds seemed to have been punctured by an insect, and pretty soon thereafter we found a large number of slim worms about half an inch in length and perhaps a sixteenth of an inch thick, of a green cast with light yellow stripes lengthwise of the body. They appeared to be as happy as clams and doing well, but we made short work of them by hand picking. They were living so high that they increased in size very rapidly, but in ten days after we got the first proof of their existence we had them annihilated, but even in that short space some of them had attained an inch and a half in length, and their appetites seem to have been so perfect that I have no doubt they would have made a clean sweep of everything in the carnation line had they been left undisturbed for only a short time longer. As it was the Grace Wilders were the only plants touched.

I have no knowledge of the name or habits of this pest only so far as noted above, but presume that the perfect insect deposited its eggs in the carnation buds while the plants were still in the open ground, and being hatched about the same time the plants were housed they soon eat their way out and were ready to attack the plants.

Judging from Mr. Washburn's description, his experience agrees with mine, and I fear that we have a new and very serious difficulty to contend with in carnation culture, and those who have fortunately escaped the pest this season will do well to be on the alert next year.

H. E. CHITTY.

Burned Sods.

As stated by Mr. Whittle in November 1 issue, burned sods from heavy soil is a very desirable addition to soil not so treated, and in the interest of a "scientific education for florists" we wrote to Mr. Peter Collier, director of the New York

Experiment Station, at Geneva, N. Y., asking if he could not enlighten us as to the chemical changes caused by the burning, and which in all probability liberates, changes and renders available food which could not before be assimilated by plants.

We give his reply below, as while it does not answer the question it is still of considerable interest:

"The matter to which you call my attention is one of very great interest. I remember in 1873, when as one of the Commissioners to attend the World's Exhibition at Vienna, I was invited to visit the estate of Prince Schwartzburg, lying between Wittingan and Budweis in Bohemia, I was greatly interested in seeing a field which had long lain under pasture being broken up for cultivation. The turf was stacked up in heaps four or five feet high and three feet in diameter with a center of sticks and roots which being kindled the entire mass was reduced to a pile of earth and ashes. I was assured that this treatment had been continued with most satisfactory results from time immemorial, and although there was obviously a great loss of nitrogenous matter the improvement of the soil by this burning of the sods was manifested in increasing its friability and rendering it far less tenacious under cultivation than it was found to be without such treatment. I can not learn that the matter has been investigated, but in certain portions of the old country it has been extensively practiced. I can not therefore really answer accurately the interesting question you propound, but can not but believe that this information will prove of interest to you and may be new."

Notes from Oyster Bay.

BY WM. FAUCONER.

The other day I rode over to Oyster Bay—the prettiest bay on the north shore of Long Island—about seven miles from here, to see my friend W. L. Swan. He called him Commodore Swan. He is a member of the New York bar, but, years ago he retired from practice and devoted himself to rural life. The cultivation of flowers has always been a passion with him, and his pretty little garden and gay greenhouse have for long been one of the

beauty spots of Oyster Bay. Urged by his many friends and neighbors, as there was no other commercial florist in the village, he, a year ago, entered directly into the florist business, and has confined himself mostly to local trade. He has added largely to his greenhouse accommodations and his collection of plants, and he tells me his encouragement fully merits this expense. Oyster Bay is a quiet little village surrounded by beautiful kalmia-lined hills, and studded all about with the summer homes of some of New York's richest people, and the railroad only reached here this summer.

Well, what does Mr. Swan do? He goes ahead and gets up a stock of the very best popular plants he can get together, just such plants as he thinks will suit the people hereabout, and he grows them well and displays them where and how they will look the best. The people don't know what they want till they see it, but as soon as they see something that is real pretty, then they know they want that plant and they buy it. And it often happens that when they see some lovely plants they yearn for them and would buy them if they only knew what to do with them after they got them; now, don't worry your customers in this way, if you tell them they may forget it, but if you show them how you use these plants, that they cannot forget. A case in point: Mr. Swan had a lot of fancy-leaved caladiums and begonias and he planted a bank of them up against the north front of his dwelling house, with tall flowering begonias and ferns against the railing which was also run over with vines and the pillars draped with vines, and selaginellas interspersed for effect's sake. The combination was so pleasing to some of his customers that they straightway determined they wanted just such an arrangement of plants at home, and now Mr. S. has not got caladiums enough to fill his orders already booked for next spring. If he merely grew a stock of caladiums in his greenhouse the demand for them would be limited, because, while all might admit the beauty of the plants, they would not invest deeply in anything they would have to take perpetual care of in a flower pot.

Mr. Swan has another attraction for the people: His place is on one of the principal streets, and it is a point with him to make as becoming a display of flowers around his house and towards the street as possible; and the beds and borders that teemed with showy plants in summer are now filled with bulbs for an array in spring. This establishes his pre-eminence in his business in the community, attracts the admiration of every passer by and sets them all a-talking and spreading his good name, prompts the interested to "come in," and starts a spirit of emulation among the people.

Furthermore, neatness and cleanliness are everywhere apparent, no lady is afraid to enter lest she may bump her head against the ventilating pipe, soil her shoes upon the mud-beddled passageways, or strain her dress by rubbing it against the shiny algae-painted bench-posts or pots. A kindly greeting is extended unto every one. And as is the case with every intellectual, educated man whose plants and flowers are seated just as deeply in his heart as in his pocket, he knows his plants from first to last and can answer every point about them, and his love for his plants at once becomes apparent to the customer who is straightway inspired with confidence in the florist.

Now Mr. Swan is only doing here what

any other florist in any other village can do and should do. Be progressive, get up and do something and do it well and show it to the people. Don't wait for the people to come to you, go you to the people.



Dendrobium Nobile.

Although all growers feel more or less familiar with this valuable old orchid, it is doubtful if one half of those attempting to grow it know how to do so in a way that will realize the best results.

D. nobile is naturally what might properly be termed a spring blooming orchid, and as frequently grown, comes in flower after the winter demand for choice flowers is to a great extent past. One point of importance is to get them into growth as soon after blooming as possible, or to begin with, start the plants into growth without regard to bloom if only a light crop is anticipated, the great object being to give them the benefit of the hot sunny weather of the spring and early summer months, so as to complete their shoots early, thereby giving them a longer period during which to fully ripen the canes. This is best accomplished by removing the plants to a cool airy house, such as a carnation or chrysanthemum house, or garapery if past fruiting, which will necessitate less frequent waterings, thus lessening the risk of starting the buds at the base of the pseudo-bulbs before the blooming season. The plants should be given all the sun which the position affords, full exposure to the sun will not injure them during the fall months, at the end of which period the buds will show at the nodes and the shoots will be of an amber color. By this method the foliage is retained, which adds much to the beauty of the plant while in bloom.

In writing the above I am not unmindful of the fact that many old orchid growers tell us that *D. nobile* flowers only from the growth of the previous year, which must be much weakened by having made a successive growth before blooming, or the vigor of this growth must be lessened by having been retarded, all of which account for the indifferent success attained by many who attempt to cultivate this orchid.

The plants may be grown in pots nearly filled with rocks and charcoal and topped with moss and fern roots, or in baskets with lumps of charcoal and sphagnum and suspended from the roof, but in either case a liberal supply of water is needed during the growing season, two or three syringings daily being not too much, until the leaf at the tip of the shoot is developed when water should be gradually withheld, allowing just enough to keep the shoots plump during the season of rest. When the buds are well advanced the plants may be brought into a warmer house, a few at a time for succession, and more water given.

BENJ. GREY.

Caterpillars and Cockroaches.

In a recent issue of the *FLORIST* Mr. Whittle tells us of his success in using "Slug Shot" in keeping caterpillars from his mignonette. We also were troubled a good deal with these pests this season

and after several ineffectual attempts to get rid of them by picking, we tried a solution of paris green applied with a syringe and were much gratified to find it a complete success, the caterpillars dropping off dead in a few hours, one application being found sufficient.

Some years since our orchid houses were overrun with roaches, resulting in much damage to the plants. After trying many unsuccessful methods of extermination we at last hit on "Costar's Rat Exterminator," which proved so efficacious that in a few weeks not a live roach was to be seen, and we have not been troubled since, but every few months we use a few boxes as a preventive. These pests are often imported with orchids, especially when received direct from their native habitat. In mixing the poison we use one part poison and two parts molasses, putting about one half a teaspoonful on pieces of tin, oyster shell, etc., and place in warm dry corners of the house, replacing every two days. F. GOLDRING.

Greenhouse Work.

The work now in hand at Lincoln Park greenhouses, Chicago, is: Propagating *Alternanthera amena*, *aurca nana* and *latifolia* from stock plants. A. *versicolor* and *paronychioides major* are propagated in August, as they then make stronger plants to carry over, which is not necessary with the kinds now being propagated.

Varieties of *achyranthes*, *pilans*, common feverfew and *chrysanthemums*, and *Thymus argentea* and *Mt. of Snow* geraniums are now being propagated. *Coleus* which were propagated September 1 are now being shifted into 3-inch pots. A varied stock of bedding plants, propagated in the latter part of September are being grown on for stock to propagate from in March.

During Christmas week they will sow seeds of *Cineraria maritima*, pansies and *Verbena hybrida*, and January 15 seed of *Ten weeks* stocks will be sown.

Gardenias.

Replying to W. J. B., gardenias that are in a stunted and sickly condition are not worth recruiting; better start afresh and with a vigorous lot of young plants. Gardenias are easily raised from healthy cuttings. These should be grown in porous soil and well drained pots, kept moderately warm and rigidly clean, and syringed once or twice a day; they should also be kept near the glass, and pinched when necessary to make them bushy. After completing their growth they like a little rest, but as they are evergreen they must never be kept very dry at the root.

Hot Water in 2-inch Pipes.

As to the merits of heating greenhouses with steam or with hot water, I do not wish to discuss, as both have their advantages, but to those about to put in hot water, let me say don't use 4-inch cast pipe when you can secure 2-inch wrought iron pipe. After having several years experience with both, I would never put in any more 4-inch cast pipe. With 2-inch wrought iron pipe you get much nearer the advantages claimed from the use of steam, that is they heat up very much quicker, also very much hotter, throwing off their heat more rapidly, and in the morning when the sun comes up to warm the houses, they cool down much quicker.

At first thought many would say that you would need double the number of 2-inch pipes to take the place of 4-inch pipes

but this is not the fact in practice. I would say from my experience that one thousand feet of 2-inch wrought iron pipe with the same fire will do as much heating as the same quantity of 4-inch cast pipe. With 2-inch pipe the water becomes very much hotter and the circulation more rapid, in fact very soon after your fire is started, your houses begin to warm up and will be quite warm before you would get any effect from the 4-inch pipe. Another great advantage is in the cost of the pipe and the great ease with which you can pipe a house, either with overhead or under the bench system. I for one like them combined. A fair trial of heating a greenhouse with 2-inch wrought iron pipe I think would give satisfaction to anyone using hot water.

Hudson, N. Y.

E. HOLLEY.

Raising Hardy Plants From Seed.

BY WM. FALCONER

True species of plants like *Lilium tenuifolium* or *Coreopsis lanceolata* will come true from seed, but the seedlings of varieties of plants, say of perennial larkspur or hybrid pentstemons, may vary somewhat from their parents. The most noticeable instance of the difference in kind of seedlings of varieties from their parents, I now remember, is in the case of our common chrysanthemums—scarcely any two being alike or any one exactly resembling its mother. But when varieties have been carefully selected, isolated and perpetuated as in the case of the double white hollyhock, the variety often comes as true from seed as if it were a species. This is more noticeable in annuals, to-wit, China asters and sweet peas than in perennials.

From seed is an expeditious way in which to get up a large stock of certain kinds of hardy perennials. These include columbines, pleuris root, species of pentstemons, *liliums* of many kinds, *primroses*, *trilliums*, many bellflowers, *corcopsis*, *rudbeckias* and *baptisias*.

Not from seed, but, instead, from division or cuttings should be the rule when named varieties of plants are considered. The hardy *phloxes*, hybrid pentstemons, pinks, German irises, perennial asters, *boltonias*, *peonias*, and the like comprise this group.

When the varieties of any species, for instance *Phlox paniculata* or *Iris Kämpferi* (*lexigata*), are apt to spread into a multitude of kinds there is far less likelihood of the seedlings being the counterpart of their parents, than if only about two varieties were common to the species, for example in several species of *campanula* (blue and white), and foxglove (rose-purple and white).

Double-flowering plants do not set seed as freely as do singles, and their seedlings are scarcely ever all double, besides many of the doubles that appear among the seedlings are likely to be too inferior to be worth raising. Double feverfew and double *Pyrethrum roseum* may represent this group. On the other side, of course how many double-flowered annuals—*peonia*-flowered poppies and balsams—come invariably true from seed.

We seldom think of propagating *Veronica rupestris* from seed because of the great ease by which it is propagated from cuttings. Perennial asters too multiply greatly at the root and are propagated by division of the clumps, and *Anemone japonica* and *Clematis Davidiana* are increased by cuttings of their roots much like as we do *bouvardias* in the greenhouse, and in many such instances as these, division or cuttings being a handier and less troublesome method of propaga-

tion than seed they are the ones usually adopted.

The seeds of some perennials, *Rudbeckia purpurea* and *Lilium tenuifolium* for instance, germinate in a few days after sowing, indeed most as readily as do those of annuals, whereas the seeds of others as *Lilium auratum* and *Helleborus niger* may take months or a year to come up. I have had some *Thermopsis Caroliniana* come up from seed in a few weeks, and others of the same sowing now and again for over a year, and all from the same crop of seed saved by myself from the same plant. Clematises, anemones and others also show an unevenness in germinating.

Quick germinating seeds like those of hollyhocks and columbines may be sown in flats in a warm greenhouse if need be, but it is unsafe to sow slow-to-germinate seeds like peonias and *Lilium superbum* in heat, as they would be apt to rot.

A ready way of getting up a stock of seedlings of delphiniums, hollyhocks, pentstemons like *ovatus* and *diffusus*, sweet williams, *Coreopsis lanceolata*, Iceland poppies, irises of many kinds, and a good many others is to let the old plants ripen and scatter their seeds about them and the seedling come up there. Then we may lift the seedlings and transplant them into nursery rows, or into flats or frames, or elsewhere as we wish. And we can get over the evil of these miscellaneous seedlings being a mongrel lot by cutting off all the old flowers of the poor varieties and before they go to seed, and leaving only the choice sorts to ripen and drop their seeds. Self-sown seedlings got in this way are just as good as those raised with the tenderest care, and then what a saving it is in labor. I never dig over our herbaceous grounds in fall, chiefly for this reason. I merely cut over the old plants and clear away the tops and have the ground clean and level, then scatter a coating of rotted manure all over the surface—over plants and all—and leave it in this way till spring. In spring I can save and transplant all the self-sown seedlings I wish and fork under the balance. The amount of *coreopsis*, poppies and other annuals I save in this way is also considerable, and they come into bloom a month ahead of spring sown stock.

When a florist raises his own seed he can sow it in fall—August is the best month, but September will do—and get good plants to keep over winter and sell off in spring; but when he has to depend upon the seed store for his supply, the seeds will probably be of the previous year's crop, hence, maybe a little more tardy in growing. I always endeavor to get up my stock in fall or during the winter months and before the rush of spring propagating comes in. Fall-raised seedlings are always stout, well-rooted, hardy plants by the following spring and in good condition for shipping; on the other hand, even if spring raised stock may be large plants enough they are usually pretty poor for long distance shipping.

As soon as our seeds ripen early in fall I sow what I want of them in flats according to kind, and place these flats in shaded cold frames; the ready growing ones as polyanthes and wallflowers soon come up, but many of them as perennial phloxes, baptisias, *Lilium speciosum*, monkshood, etc. lie dormant till next spring, when they come up thick enough. Frost often assists germination. I have had lily seed sown in fall as soon as gathered come up the following spring, and more of the same seed of the same gathering which was not sown till spring not germinate till the ensuing spring.

Leaves of Advice From a Limb of the Law.

(For Young Florists.)

XL.

Good morning. No apology necessary. I was admiring that beautiful rubber plant. It is one of the sturdiest and largest I ever saw.

Who is the owner? No owner! What do you mean? Oh, there are two owners, eh? Each forbids you to deliver it to the other does he? Well, this is quite a novel point. Ownership is always an interesting study and when you get through



WILLIAM J. STEWART.

nursing that sick plant we'll talk a little about it.

There are two kinds of joint ownership, in one case the thing owned, in case there are two owners goes to the surviving owner absolutely. But in this country we don't look with much favor upon joint ownership. When a man dies in this country owning a share in any piece of property, real or personal, we like to see the interest descend to his legal representatives and not to his co-owner or owners.

The kind of joint ownership popular in this country is called a tenancy in common. For instance, these two gentlemen are owners in common of this rubber plant. In case one dies his next of kin would take his share. They each own one half, but it is an undivided half. If they can't agree as to the disposition to be made of this rubber plant, you may be obliged to invoke the assistance of the court and have it sold, your charges paid and the remainder divided between these two eccentric gentlemen. Ownership needs no consideration to support it.

A man has a right to give a thing away, provided he is solvent. True, in giving real estate it is customary to express some sort of a consideration, such as "natural love and affection and the sum of one dollar." But it is an empty form. A deed would be valid without any mention of a consideration provided it set forth the fact that the grantor desired to vest the fee in some person, and "therefore he doth by these presents give, grant, etc." The mere manual delivery of a piece of personal property carries the title to it in absence of all fraud.

But I need hardly tell you that possession is only *prima facie* evidence of ownership. Instead of being nine points in the law it is not a single point. The law

merely presumes ownership from possession. But you know "presumptions" may always be overthrown. Ownership only becomes absolute upon one proof of that fact. Even the false teeth which enables an unscrupulous man to swear that they are paid for may, upon the submission of all the evidence, turn out to belong to the dentist who merely "loaned" them to the man to try.

One kind of ownership we called a "life interest." After the death of the "life man" the property goes to the "remainder man." Now you will readily understand that the law could not with any show of justice permit a "life man" to execute a mortgage on the property for any longer time than he might live.

When personal property is dangerous the law exercises a restraint upon your ownership. For instance, it would not permit you to store gun powder or dynamite in this greenhouse. Nor would it allow you to grow poisonous plants here unless with closed gates or doors. It also watches over your cattle and beasts of burden. Your ownership doesn't permit you to be cruel to them. Naturally ownership either to real or personal property rests mainly upon "paper titles."

Business men are too apt to be careless in perfecting their ownership in the merchandise in which they deal. This can not be too strongly condemned. Therefore, I advise you to scrutinize receipts, bills of lading, bills of sale, etc. Nothing is more liable to end in errors, disputes and law suits than the custom of opening a running account and paying something "on account" now and then. Insist upon a statement before you send a check. Then you'll know where you stand.

Watch balances on both sides of the ledger. Above all, don't claim that you own a piece of property unless you do. I mean by that don't get credit on the fact of "living in your own house" when the place is mortgaged for three quarters of its value. In that case you are only the "equitable owner." In equity, a man may own a million dollars and yet not be able to pay for a plate of soup.

UNCLE BLACKSTONE.

William J. Stewart.

On this page we present a portrait of Mr. William J. Stewart the present secretary of the Society of American Florists, to which office he has been twice re-elected, and which he has most creditably filled. He is also well known to the readers of the *FLORIST* through his frequent contributions to these columns.

Mr. Stewart was one of the pioneers in the wholesale cut flower commission trade, which business he still conducts in Boston, and is so well known to the trade that an introduction is hardly necessary.

New York.

The final sale of the Wilson estate, which occurred November 25 and 26, was well attended, in spite of inclement weather. This sale included plants, nursery stock, pipes, pots and miscellaneous belongings of a nursery. Prices realized were fairly good, and the amount realized is said to be over ten thousand dollars. No settlement has yet been approached, though it probably will not be very long before the affairs are wound up.

Mr. John Henderson is still lying in a very precarious condition, being dangerously weak, and his friends feel very grave fears for his recovery. His kindly face and gentle old school courtesy are missed by his many friends in the trade.

E. L. T.

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9 orders for less than one-half inch space not accepted.**Advertisements for January 1 issue must REACH US by noon, Dec. 26. Address****THE AMERICAN FLORIST CO., Chicago.**

IN ANOTHER COLUMN will be found a communication from the superintendent of the horticultural department of the Michigan Agricultural College, describing his preparations for a test of the comparative value of steam and hot water for heating greenhouses. We are pleased to note that an effort is being made to definitely settle this question, about which there has been such a diversity of opinion, and trust that the advocates of either system will not fail to supply to Superintendent Taft any information which they think will be of value to him in his efforts to make the test fair and conclusive. We are also advised that the Experiment Station at this college is prepared to make tests of flowers, fruits and vegetables, of insecticides, and of any implements and machines that are to be brought to public notice.

Now is the time to begin preparations for the fall exhibitions of 1890. Too early! you say. Not a bit of it. The usual mistake is to let the matter drag along until it is too late to have all the details properly attended to. It is not too early to prepare your premium list, for those who expect to compete will want to know now what premiums are to be offered, that they may propagate and prepare to grow the plants in accordance with the requirements of the schedule.

THE HOLIDAYS are at hand and the annual bustle of preparation is heard among the florists. The season is far from one of rest and recreation with those in the trade, but we can secure all the rest desired—generally more than desired—during Lent. We must make hay while the sun shines, and in a financial sense the sun will shine brightly for the next few weeks. We therefore wish all our readers a busy Christmas and a happy and prosperous New Year.

A. N., SAN FRANCISCO.—We were unable to identify the grubs sent which were pretty well dried up when received. Lime is recommended, but we doubt if there is any way to thoroughly clear them out except to take the soil all out and start again with clean soil. Manure frequently harbors grubs which do great damage in the greenhouse and it should be carefully inspected before being admitted. See back numbers for recommendations as to soil for roses.

SOME SPECIMENS of the Numbchoestnut received from Sam'l C. Moon, Morrisville, Pa., were of remarkably large size and of fair flavor, though hardly equal to that of the common kind. This chestnut is a fine shade tree and the size of the nuts will undoubtedly find a quick market for them, even if the flavor is not quite as rich as the smaller ones.

A copy of Tillinghast's Floral Album is sent us by Isaac F. Tillinghast, La Plume,

Pa. It contains 30 pages of colored lithographs of flowers, nine different subjects on each page.

WITH THIS ISSUE the FLORIST appears in a new dress of type which decidedly improves its appearance typographically and which will, we believe, be appreciated by our readers.

AFTER the exhibition is over is the time that we are told how it should have been managed by those who did not do a stroke of work in connection with it.

A. R. ALDRICH, Springfield, O., sends us a calla bloom with an investing leaf resembling a spathe, and with an abortive miniature flower between the two.

MR. PETER HERKE, Cleveland, O., sends us specimen flowers of a seedling single violet which is of large size and exceedingly fragrant.

FROM FRED BURKI, Bellevue, Pa., we have received a box of late chrysanthemum flowers which show evidence of good culture.

JOHN GOODE & Co., Chicago send us a box of chrysanthemum blooms of very good quality for so late in the season.

Catalogues Received.

Seven Oaks Nurseries, Bay View, Fla., tropical and semi-tropical trees and shrubs and greenhouse plants; Fred Roemer, Quedlinburg, Germany, flower seeds; John Palmer & Son, Dumfriesshire, Scotland, evergreens and ornamental trees; Thos. H. Spaulding, Orange, N. J., chrysanthemums; Orcutt Seed & Plant Co., San Diego, Cal., nursery stock; Wm. Paul & Sons, Waltham Cross, Herts, England, roses; Benj. Hammond, Fishkill-on-Hudson, N. Y., insect destroyers; A. Cauchoix, Orleans, France, roses; Isaac F. Tillinghast, La Plume, Pa., seeds.

News Notes.

MASON CITY, IOWA.—A. L. Wheeler has just completed a new house 18x59.

CRESTON, IOWA.—F. T. Brown has just completed two new houses 17x100.

LUDINGTON, MICH.—Wm. Gregory has just completed a new greenhouse 18x100.

MANISTEE, MICH.—Otto Baumann has started into business here with one greenhouse.

SACO, ME.—Geo. L. Mahoney has recently completed a new greenhouse 16x65.

BALTIMORE.—Wm. J. Halliday has opened a new floral store at 304 W. Madison street.

MILWAUKEE.—Kitzetow Bros. have just started greenhouses on the Green Bay road, and John Dumlup, Jr., has done likewise at Waukesha.

BELLEVUE, PA.—On the morning of December 1 four greenhouses belonging to Fred Burki were destroyed by fire. Cause was natural gas and defective flues.

MILWAUKEE.—The Wisconsin Flower Exchange has been incorporated. The incorporators are Wm. Whitnall, C. B. Whitnall, B. Gregory, F. R. Ellis and B. M. Walters. Capital stock \$2,000.

SUMMIT, N. J.—The Social Florists' Club of New Jersey now has about forty-five active members, all young men growing up in the florist business. A library is being collected as fast as means will permit.

PITTSBURGH.—Mrs. Schenley of London, England, who inherited and owns a vast amount of real estate in this city, has given 300 acres of land, lying mostly in the 22nd ward, for a public park to be known as Schenley Park.

PITTSBURGH.—Fire at the greenhouses of Chas. T. Siebert caused a loss of \$3,000 on buildings and plants the morning of December 2. Four greenhouses were partly destroyed and the boiler room totally. No insurance.

LOUISVILLE, KY.—The firm of Haupt & Epping has been dissolved. Epping has gone back to the greenhouse business and Haupt has the cut flower store. Fire destroyed about \$500 worth of plants at E. G. Reimer's greenhouses recently.

CHICAGO.—Paul Bork has started into business at Evanston with two houses, one 20x100 and the other 17x100. He will grow cut flowers for the Chicago market. Schiller & Mailander have established a city store at 570 West Madison street.

RUTLAND, VT.—The fire at W. D. Lane's greenhouses, November 17, destroyed the office, containing seeds, bulbs, supplies and utensils, but only about 600 feet of glass was lost, though many valuable plants destroyed. The loss is estimated at \$3,000 with insurance of \$1,050.

NORTH WALES, PA.—J. K. Anders has put in a 35-horse power boiler and is now heating his greenhouses by steam. John Ashford has made an addition to his greenhouse, which is nearly completed. John Gearhart has purchased a 15-horse power boiler and will heat by steam.

LONDON, ONT.—At the meeting of the Gardeners' and Florists' Club held December 2 the following officers were elected for 1890: A. R. Murdock, president; Geo. Robinson, vice-president; Wm. Gammage, secretary; Geo. Cairncross, treasurer. W. H. K. Talbot and Geo. Cairncross were elected representatives to the Western Fair Board.

LEBANON, MO.—The thirty-second annual meeting of the Missouri Horticultural Society held here the first week of this month was one of the most pleasant and interesting ones ever held by the society. The stage in the opera house where the meeting was held was handsomely decorated with ornamental plants. The exhibits were mainly of fruits.

BUFFALO.—At the last meeting of the Buffalo Florists' Club a very interesting paper was read by Prof. J. W. Cowell, on the diseases of plants, illustrated by a diagram of plant roots in various stages of disease, microscopic views of black spot, red spider, aphid on the foliage and on the roots, giving an insight into the manner in which these pests injure plants. It was the first anniversary of the club and after the business of the evening had been transacted all adjourned to the supper room where a substantial repast was enjoyed. The responses to the toasts were happy and there were many wishes for the future prosperity of the club.

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Cut Flowers.

BOSTON, Dec. 9.	
Roses, Teas.	\$2.00 @ \$3.00
" Parle, Sunset.	6.00 @ 8.00
" Mermet, Bride.	3.00 @ 10.00
" Genders, Niphetos.	4.00 @ 6.00
" Beauties.	40.00
Violets, Bouvardia.	1.50
Valley.	6.00
Romans, Narcissus.	4.00
Carnations.	1.00 @ 3.00
Harrill.	18.00
Callas.	12.50
Adiantums.	1.00 @ 1.50
Smilax.	12.50
Farleyense.	15.00 @ 20.00
Prices of roses, violets and carnations will advance for the holidays.	

PHILADELPHIA, Dec. 9.	
Roses, Hybrids.	\$50.00
" Am. Beauty.	25.00
" La France, Mermet, Brides.	6.00
" Hoste, Watteville, P. Guillot.	6.00
" Bennetts.	5.00
" Cousins.	4.00 @ 5.00
" Perles, Niphetos.	3.00 @ 4.00
" Cousins.	.75 @ 1.00
Violets, double.	2.00
Valley.	6.00 @ 8.00
Romans, Narcissus.	2.00
Mignonette.	2.40
Bouvardia, long.	1.25
Carnations, long.	1.50 @ 2.00
Carnations, short.	1.00 @ 1.25
Smilax.	15.00
Adiantums.	1.00

NEW YORK, Dec. 9.	
Roses, Bon Silene.	\$3.00
" Gontiers.	5.00
" Perles, Sunsets.	4.00 @ 5.00
" Niphetos.	3.00 @ 4.00
" Mermet, Brides.	10.00 @ 12.00
" Cousins, Watteville.	10.00 @ 12.00
" Hostes.	6.00
" Bennetts.	3.00 @ 15.00
" La France.	12.00 @ 15.00
" Albany.	20.00
" Am. Beauties.	25.00 @ 75.00
" Jacqu. Alexiella.	15.00
" Magnas.	75.00
Smilax.	15.00
Carnations, long.	2.00
Mignonette.	3.40
Roman byacintus.	4.00
Narcissus.	8.00
Valley, tulips.	8.00
Harrill lilies.	25.00
Violets.	2.00
Adiantums.	1.00

CHICAGO, Dec. 11.	
Roses, Perles, Niphetos.	\$7.00 @ \$8.00
" La France, Mermet.	8.00 @ 12.00
" Brides.	10.00 @ 12.00
" Bon Silene.	4.00 @ 5.00
" Gontiers.	6.00 @ 6.00
" Bennetts, Duke.	3.00 @ 9.00
" Am. Beauties.	25.00 @ 40.00
Carnations, short.	2.00 @ 3.00
Carnations, long.	2.00 @ 3.00
Carnations, fancy.	3.00 @ 4.00
Smilax.	5.00 @ 15.00
Asparagus tenuissimus.	40.00 @ 50.00
Romans, narcissus.	5.00
Valley.	8.00
Violets.	1.25 @ 1.50
Bouvardia.	1.00 @ 1.50
Sterea.	1.00 @ 1.25
Pansies.	.75 @ 1.00
Callas.	18.00 @ 20.00
Poinsettias.	25.00
Heliotrope.	1.00 @ 1.50
Adiantums.	1.25 @ 1.50

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ON TELEGRAPHIC ORDERS.

See our Large Advertisement on page 221.

CUT ROSES AT WHOLESALE.

The only establishment in the west growing
 Cut Roses exclusively.

CUT, PACKED AND SHIPPED THE SAME DAY.

Only packed once, then by experienced per-
 sons. All packages delivered at the trains, thus
 enabling parties at a distance to get fresh Cut
 Roses.

Orders by Mail or Telegraph promptly at-
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GARFIELD PARK ROSE CO.,
 1688 Madison Street, CHICAGO, ILL.

JOHN M. HUDSON,
WHOLESALE

Commission Dealer in Cut Flowers,
 1225 Market St., ST. LOUIS, MO.

Quick sales and prompt returns guaran-
 teed. Consignments solicited.

CUT FLOWERS

The choicest Cut Flowers at lowest market rates
 shipped C. O. D. Telephone connection. Use A. F.
 Code when ordering by telegraph. For prices, etc.,
 Address,

J. L. DILLON, BLOOMSBURG, PA.

☞ Re Seed Trade.

SEED TRADE ASSOCIATION.

H. W. JOHNSON, Philadelphia, president; ALBERT M. MCCULLOUGH, Cincinnati, secretary and treasurer. The eighth annual meeting at Saratoga Springs, N. Y., June, 1899.

THE NEXT QUESTION is how low will the price of sweet corn go?

HENRY A. SALZER is threatened with loss of his eyesight and is now confined to the house.

PASSED through Chicago: Dan'l DeCon, of S. L. Allen & Co., Mr. Chas. Woodhill, of Thorburn & Co., N. Y., H. W. Buckbee, of Rockford, Mr. Rendell, of Burpee & Co., C. E. Corrigan, of N. B. & G. Co., Mr. T. Webster.

Boston Notes.

The Mass. Hort. Society has arranged to hold the annual exhibition of plants and flowers during the time of the convention of the S. A. F.

The December meeting of the Gardeners' and Florists' Club was largely attended. "Primulas" was the subject under discussion. The reputed poisonous effects of *Primula obconica* were vigorously disputed "pro and con."

F. C. Fisher of South Sudbury, for the past few years a large grower of carnations, died of hemorrhage at his home on December 5. He was a member of the Society of American Florists and a frequent exhibitor at the Mass. Hort. Society's shows.

The first cold weather of the season has been experienced during the past week, with the usual result of a big jump in the price of roses. Up to the present time prices have averaged lower than ever before. Chrysanthemums are about gone. Those who have any left now will get good prices for them. The demand for violets for corsage wear this season amounts to almost a craze. They are decidedly the most popular flower at present, and are none too plenty. Harrisii lilies will be in fair supply for Christmas. W. J. S.

Fumigating.

I wish to add my testimony as to the superiority of evaporating tobacco water to burning the tobacco for fumigation. I always keep a barrel full of tobacco stems soaking in water and have a tin pan 2x3 feet and 4 inches deep. I fill the pan about half full of tobacco water and then put in it three or four red hot fire bricks. It kills greenfly very quickly and never injures even the most tender plants. Omaha, Neb. A. Hooge.

Method of Glazing.

In No 58 of the FLORIST, page 230, of Vol. 3, is illustrated a method of glazing used by a florist in Richmond, Va.

I have tried the method and it is not satisfactory here in the north, at least with me, as frost soon works the glass loose. I have had to relay the glass on my roofs at some cost and thought should make known my experience for the benefit of other northern florists. Lansing, Mich. F.

Heating.

We watch with interest the various arguments on the comparative value of hot water and steam for heating.

Our houses are piped for steam, but we

use both hot water and steam. We can change over in 20 minutes from hot water to steam, or vice versa. In mild weather in fall and spring we find it very handy to use hot water, as it is less trouble to look after the fires. We use one or two 20-horse power wrought iron boilers, as the temperature demands.

M. WINGATE & SON.
Lawrence, Mass.

Peter Henderson's Wonderful Feat.

Little May, aged about 7 years, was sitting on her father's knee, one day, when some one happened to mention the name of the well known florist. "Oh, yes," said May, "my aunt knows Peter Henderson. Peter Henderson was out in the boat and he tried to walk on the water to Jesus and he got scared, and Jesus called him, and Peter Henderson was afraid, and he sunk down in the water and—"

"What!" said the astonished father. "Yes," she cried. "My aunt told me all about it. Peter Henderson tried to walk on the water, and he couldn't do it, and he was going to get drowned; and then Jesus he put out his hand and Peter Henderson got a hold of it and then he walked on the water."

Argument and explanations were tried, but the convictions of little May remain unaltered. She insists that Peter Henderson was the man, because her aunt knows him and said that he walked upon the water.—*Jersey City Journal*, Nov. 18.

SAN FRANCISCO.—The State Floral Society realized a profit of \$75 over all expenses from the recent chrysanthemum show. The newly adopted constitution of the society among other things provides that all the officers shall be amateurs, provided, by general consent at the time of election, one or more professional florists may be chosen, but the board of directors, by and with the consent of the society, may choose an advisory board of three from members who are professionals.

CALIFORNIA ONION SEED

YELLOW GLOBE DANVERS

For sale in job lots at a low price. This seed is guaranteed by authentic affidavits to be good, and true to name.

Correspond with

M. GEORGE & CO.,

95 South Water Street, CHICAGO.

TO SEEDSMEN:

ALL HAND GARDEN TOOLS, At trade rates, with free electro.

SMILAX SEED.

MOON FLOWER SEED.

SUNFLOWER SEED.

OSAGE MELON, TRUE STOCK SEED.

CHICAGO MARKET MELON.

J. C. VAUGHAN, CHICAGO.

TO THE TRADE.

HENRY METTE,
Seed Grower and Merchant,
QUEDLINBURG, GERMANY.

(ESTABLISHED 1857.)

Will be pleased to quote special prices for garden, agricultural and flower seeds saved at his extensive grounds, which cover more than 4,000 acres.

To The Horticultural Trades

GREETING.—This is simply to remark that we have cut discounts to Advertising Agents down to a low figure. So if you are placing your order through an agent, you may have to INSIST on his including *The American Garden*, to prevent substitution of a less valuable medium. YOU know well enough that there is NO OTHER WAY so low in cost for the results secured, for reaching the best grade of Horticultural Buyers.

YOU MISSED IT if you did not get your ad. into the January number (now closed) which is to be a great double extra edition, of extra size and numerous illustrations. BUT when you see that number, and reflect that those to come after will be very nearly as good (perhaps better), THEN you will lose no time in forwarding your "copy" for an advertisement.

GARDEN PUBLISHING CO.,
(LIMITED),

10 Spruce Street, New York.

CALDWELL'S CHRISTMAS GREEN

Is the **FINEST OFFERED**: always carefully selected, and packed **FRESH FROM THE FORESTS**. No. 105 BOX or STORED STOCK IN MINE. The following prices are quoted, delivered in any city. **CASH MUST ACCOMPANY ORDER**, and I prepay all Freight and Express charges.

PROMPT DELIVERY GUARANTEED.

"SPEED MY SPECIALTY."

FERNS, FANCIES AND DAGGERS, per 1000, \$2.00; 200, \$3.50; 5000, \$7.50.

HOLLY, 16 foot Case, \$6.00; Barrel, \$3.50. Foliage dark green, plenty of berries.

MISTLETOE—Caldwell's Druid Brand—in Baskets of two-thirds Barrel, \$4.00.

LONG NEEDLE PINES, a splendid seller, 25c.; 30c.; 35c. and 50c.; 1, 2, 3 and 5 feet.

WILD SMILAX, finest Evergreen on earth; magnificent for large decorations; per Barrel, \$4.00.

YUPON, lovely Florida Evergreen. **SOMETHING NEW**, small green leaves, myriads of red berries. Barrel, \$5.00.

GRAY MOSS, per lb. by mail, 25c.; per bbl., \$3.25.

PALMETTO LEAVES, put up in HALF Dozens, to sell across the counter like Holly, good seller; per 100, \$5.00; 500, \$15.00; 1000, \$25.00. Carefully packed, fresh and bright.

MAGNOLIA BRANCHES, \$3.00 per Barrel.

Magnolia Leaves make beautiful Wreathing. Send for sample piece of **CALDWELL'S MAGNOLIA TRIMMING**. Per 1000 leaves, \$2.00.

—MY GOODS ARE FOR SALE BY—

A. Rolker & Sons, 41 Dey St., N. Y.; W. J. Stewart, 67 Bromfield St., Boston; La Roche & Stahl, 1237 Chestnut St., Philadelphia; Wisconsin Flower Exchange, Milwaukee; John M. Hudson, 1225 Market St., St. Louis; Geo. W. Hill, 115 Randolph St., Detroit; N. S. Grinith, Kansas City, Mo. I do not fill orders to cities where I have agents, except \$3.00 sample lot, and to old established customers.

WANTED—A floral house to handle my goods wherever I am not established.

Send for Terms, Samples and Price Lists.

**CALDWELL, The Woodsman,
EVERGREEN, ALA.**

Mention American Florist.

EVERGREEN WREATHING, well wound on heavy cord, splendid quality, \$4.50 per 100 yards.

EVERGREEN IN BULK, bbl. (25 lbs.) \$2.00.

HOLLY, per barrel, splendid quality, \$2.00.

HOLLY WREATHS, 10-in., per dozen, \$1.50.

EVERGREEN LETTERS, 10-in., 10c. each.

KEENAN'S SEED STORE,

6016 Wentworth Ave., CHICAGO.

**HEADQUARTERS FOR
Decorative Stuff, as**

**PALM LEAVES AND PLANTS,
Pines, Wild Smilax, Etc.**

A. C. OELSHCIG, Savannah, Ga.

Mention American Florist.

The best Christmas Present for a working florist will be "Floral Designs," the help for cut flower workers. Write about it to J. Horace McFarland, Box 55, Harrisburg, Pa.

TUBEROUS BEGONIAS.

SEED saved from the cream of 7,000 plants of superb single varieties, many blooms measuring 5 to 6 inches in diameter; the shades of color are grand. Trade packets (mixed) \$1.00 each.

FISHER BROS. & CO.,

NEW ENGLAND NURSERY, MONTVALE, MASS.

CYCLAMEN

Seed from our best plants, chiefly Giganteum, an extra fine strain. White, white with crimson and mauve base spotted, and shades of crimson and lilac. Sow at once. Our sowings are germinating freely. Per packet 25c., 50c. and \$1.00.

J. LAURENCE, Harrisburg, Pa.



No. 4767 Under the Mistletoe. Electro of this cut \$1.50



No. 9191 Holly Wreath. Electro of this cut \$1.50.

A larger size (4 inches), \$3.00.

Both cuts can be furnished without the Mistletoe, reserving space for type.

ELECTROTYPES OF THE ABOVE CUTS ARE FOR SALE BY

A. BLANC, HORTICULTURAL ENGRAVER, Philadelphia.

7000 OTHER ELECTROS in stock suitable for Florists, Seedmen and Nurserymen's Catalogues and general printing. Send for List of Catalogues, a set of which will be sent on receipt of 50 cents, deducted from first order.

1,000,000 EVERGREEN CUT FERNS

ESPECIALLY FOR FLORISTS' USE.

\$1.50 per thousand Ferns. Discount on large orders.

Special attention paid to supplying to the wholesale trade. Write for prices.

BOUQUET GREEN. \$2.00 per bbl. (30 lbs.)

\$5.00 per 100 lbs.

20,000 yds. BOUQUET GREEN WREATHING, all wound with wire in first class manner.

3-in. flat or one sided wreathing..... per yard

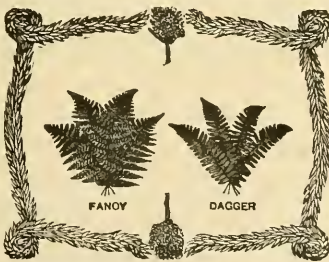
3-in. round wreathing, with cord in center..... 6 cts.

3-in. round wreathing, with cord in center..... 5 cts.

3-in. round wreathing, with cord in center..... 10 cts.

700 BBLs. DRY SPAGNUM MOSS, \$1.00 per bbl or 5 bbls. for \$5.00. Write for terms on large lots.

L. B. BRAGUE, Hinsdale, Mass.



NEW PRIMULA OBCONICA SEED

CROP (about 1000 seeds) Now Ready.

PRIMULA FLORIBUNDA, pkt (100 seeds) \$1.00

PRIMULA OBCONICA PLANTS, from 3 & 3 1/2-

inch pots, \$1.25 per doz; \$10.00 per 100.

PRIMULA FLORIBUNDA, 2-inch pot plants,

60 cts. per doz; \$4.00 per 100.

L. N. KRAMER & SON, Marion Iowa.

VERBENAS.

Orders booked now for rooted cuttings.

STOCK ABSOLUTELY HEALTHY.

General Collection, most approved sorts, largely of

best MAMMOTHS, \$1.00 per 100, \$8.00 per 1000.

SMILAX, 2 1/2-inch pots, \$2.50 per 100, \$20.00 per 1000.

Address **J. G. BURROW,**

FISHKILL, N. Y.

Coleus, Rooted Cuttings..... Per 100
Geronium, rooted cuttings..... 1.50
Chrysanthemum, rooted cuttings..... 1.50
Dracena indivisa, 4-inch pots..... 2.00
Begonia metallica, 3-in. pots..... 4.00
Mrs. Alpheus Hardy, 2 1/2-inch pots..... each .25
Mrs. Andrew Carnegie, 3 1/2-inch pots..... each .75

Write for prices on other cuttings.

W. W. GREEN, SON & SAYS,

WATERTOWN, N. Y.

FOR SALE.

Primula obconica, strong, transplanted, \$1.50 to \$2.00

Hydrangea hortensis, 2 1/2-in. pots, strong..... 5.00

Begonia rubra, 3-in. pots, strong..... 5.00

Begonia metallica, 3-in. pots..... 4.00

Coleopsis lanceolata..... 10.00

Helianthus multiflorus piens..... 5.00

50 at 100 rate, cash with order. Orders booked now

for plants or rooted cuttings of Carnations at low

prices. Orient, best crimson; Florence, Mile, Carie,

Hilze's White, Portia, Century, Mrs. Carnegie,

Grace Wilder, J. Perkins.

FRED. BECKI, Bellevue, Pa.

Mention American Florist.

J. C. VAUGHAN, CHICAGO.

OFFERS }
DEC. 15: }

Chinese Narcissus, @ \$11.00.

Callas, Dry Bulbs, @ \$9, \$12 and \$15.

Spirea and Dielytra, \$6.00.

Lily of Valley, Pipes and Clauaps.

Narcissus, Alba, Plena Odorata, Poeticus, Incomparable double, Maximus, Von Sion.

Hyacinths Mixed, in colors, five bulbs.

Tulips, Mixed, per 100, \$1.25.

Tuberose Bulbs, Pearl, 50c, per M \$12.50

Gladiolus, New "Snow White," Jan. 1.

Rose, Duchess of Albany, 2-inch \$15.

C. Souper, February 1st, 2-inch, \$15.60.

Bouquet Green, SOLD OUT.

Bouquet Green Wreathing, per 100 yards, \$3.50 and \$5.00

Florida Moss.

Holly, Scarce, few Cases at \$6.00.

Holly Wreaths, fine, dozen \$2.25.

Mistletoe, Ready, per barrel \$5.00.

Southern Pines, Fine, doz. \$5.00; each, 50c.

Bells, of Scarlet Immortelles, each \$1.10.

Xmas Tree Holders, neat, practical; 2-inch, doz. \$5.50; 3-in., \$7.50.

Pampas Plumes, Select, 32 to 36 in., per 100, \$11.00; Medium, 24 to 30 inches, per 100, \$7.50.

NEW SEEDS.

CANNA, New French Hybrids, per oz. 75c.

GLOXINIA, Deñance, new scarlet, pkt. 50c.

CENTAUREA Gymnocarpa, pkt. 25c., oz. 75c.

Candissima, 1000 seeds 60c.

DRACENA Indivisa lin. 1000 seeds 75c.

COBÆA Scandens, pkt. 15c., oz. 60c.

LATANIA Borbonica, lb. 75c.

MOON FLOWER, lb. \$5.00, oz. 50c.

SILAX, lb. \$12.00, oz. \$1.00.

PHENIX Canariensis, 100 seeds 40c.

MUSA Ensete, 100 seeds \$2.00.

J. C. VAUGHAN, CHICAGO.

SURPLUS STOCK.

NOW READY. IN FIRST-CASS CONDITION.

PTERIS TREMULA, from 2-in. pots. Per 100 \$4.00

" Argylea, from 2-in. pots. 6.00

Smilax, from 3-in. pots. 5.00

Acanthus (Blue African Lily), 2 years. 8.00

Couvardias, all the leading sorts, 2-in. 8.00

Hibiscus in 6 best sorts, from 2-in. pots. 4.00

" in 6 best sorts, from 4-in. pots. 8.00

We call attention to the two double sorts minia-
ture Semipalm and Subvulvicos, of which the flowers last for days—unlike the others.

ROSES NOW READY, from \$35 to \$50 per 1000.

Send your lists to be priced.

Rooted Cuttings of Vinca major var. and Har-
risonii, \$2.00 per 100.

Address **NANZ & NEUNER,**

LOUISVILLE, KY.

Large Irish BEACONSFIELD Yellow Primrose
for Naturalization in the States.

WM. BAYLOR HARTLAND, Seedsman,

CORK, IRELAND.

Offers New Seed just harvested, per lb. 50c; ½ lb. 25c;
¼ lb. 15c; ounce 10c, for immediate reply and cash
with foreign orders, so long as unsold. Old estab-
lished Seed Warehouse, 24 Patrick St., Cork.

He also offers New Crop of the SNOWGLO
(Chionodoxa), and Prize Trumpet Daffodil
Seed, from his celebrated collection.

CENTAUREA CANDISSIMA

For sale. 10 oz. Fresh seed of good quality, at \$2.50
per ounce. The entire lot, at \$1.75 per ounce.

MISS K. O. SESSONS,

P. O. Box 715, San Diego, Cal.

V. H. Hallock & Son's Trade Catalogue

—OF—

FLORISTS' BULBS and SEEDS, NOW READY.

LILIUM HARRISII, 5 to 7-inch. . . . \$7.00 per 100; \$65.00 per 1000

" 7 to 9-inch. . . . 9.50 " 90.00 "

TUBEROSE EXCELSIOR PEARL, READY NOV. 1,

\$1.50 per 100; \$12.50 per 1000; f. o. b. New York.

Very complete list of seasonable "Florist Seeds," PRIMULA, PANSY, DAISY, &c.

WE CARRY 400 VARIETIES OF CHRYSANTHEMUMS.

Plants ready to ship at all times.

GLADIOLUS "SNOW WHITE"

will be for sale by all dealers next January. To all wishing a description, or to cata-
logue this New Pure White variety, a description with prices will be sent on applica-
tion.

V. H. HALLOCK & SON,

QUEENS, N. Y.



HOLIDAY GOODS AND NOVELTIES.

BOUQUET GREEN—per 100 lbs. \$5.00. Prices for larger lots
on application.

WREATHING—\$5.00 per 100 yards; \$30.00 per 1000 yards

EASTERN HOLLY—per case of 16 cubic feet, \$6.00; three
cases and over, \$5.00.

HOLLY WREATHS—14-in. in diam. Doz., \$2.50; 100, \$15.00

XMAS TREES—From 1 foot up to 20 feet, \$2.50, \$3.50 and \$6 per
dozen. Specimen Trees for Churches, etc., \$5 to \$10 each.

MISTLETOE—per barrel, \$5.00. Being praiseworthy, it should
go by Express.

CHRISTMAS BELLS and STARS—These beautiful novel-
ties are handomely made with Scarlet Immortelles. Price
for 8-inch Bells and 10-inch Stars, \$1 each; \$10 per dozen.

PAMPAS PLUMES—\$1.75 per dozen; \$10.00 per 100; dyed in
assorted colors, \$2.25 per dozen; \$16.00 per 100.

FAIRY FLOWERS—in Scarlet, Pink, Blue, Purple, Yellow
\$1.75 per 100; \$15 per 1000; White, \$1.50 per 100; \$12.50 per 1000.

JAMES KING, 170 LAKE ST., CHICAGO.

R. VAN DER SCHOOT & SON,

HILLEGOM, HOLLAND.

LARGEST GROWERS OF

HYACINTHS, TULIPS, NAR-

CISSUS, SPIRÆA, LILIES

OF THE VALLEY, ETC.

Headquarters for Forcing Bulbs. Whole-

sale Importers should write us for prices.

Association Flora, Boskoop, Holland.

NOW ON HAND IN NEW YORK:

25,000 Dwarf budded Roses in sorts.

3,000 Rhododendrons in sorts.

3,000 Azalea Mollis and Pontica in sorts.

2,000 Clematis, extra strong plants.

Trees, Shrubs, Evergreens, Conifers, Pæo-
nias and other herbaceous plants.

PLANTS FOR FORCING AND DECORATING.

Address **P. OUWERKERK,**

212 Fulton St., NEW YORK CITY.

Catalogue on application.



TRY DREER'S

GARDEN SEEDS

Plants, Bulbs, and

Requisites. They are the

best at the lowest prices.

TRADE LIST issued

quarterly mailed free.

HENRY A. DREER,

Philadelphia

PLANTS.

Orders now booked for Rooted Cuttings

of Coleus, Alternanthera, Heliotrope, Ger-
aniums, etc. Prices low.

Please state what you need, and get prices.

JOHN J. CONNELLY, Bryn Mawr, Pa.

Foreign Grape Vines for Graperies.

Splendid 1 and 2 year old vines, true to name,
grown by an expert. List of varieties and prices
mailed on application. HENRY A. DREER.

714 Chestnut St., Philadelphia, Pa.

FALL BULBS

Surplus Stock,

In prime condition, at the following low prices until
sold. TERMS NET CASH.

Per 1000 Per 100

ROMAN HYACINTHS, early white, . . . 31.00 3.50

(5,000 at \$135.00; 10,000 at \$250.00)

Extra large selected. 31.00 3.50

White Mountain Hyacinth, pink skin,
delectable variety for late forcing. . . . 20.00 2.50

Ornithogalum Arabicum, white, black
center, late forcing. 17.00 2.00

Narcissus in sorts, or forcing mixture. . . 18.00 2.10

Poi, Narcissus, mixed, yellow or white. . . 15.00 1.75

Lilium Candidum, 1st size, for budding. . . 20.00 2.50

" HARRISII, 7 to 9 in. circum. . . . 85.00 9.50

" " 5 to 7 " " " " 60.00 7.00

" " 4 to 6 " " " " 40.00 5.00

" Auratum, home-grown. Per doz.

" to 9 in. circumference. \$1.50 10.00

Allium Hermetii Grandiflorum, new. . . . 1.00 7.00

Amaryllis Belladonna, large bulbs. . . . 1.00 7.00

" Sarraceniensis ("Guernsey Lily"). . . 1.25 8.00

" single, "The Bride," pure white. . . 3.00 2.00

" " Filigens, dazzling scarlet. . . . 3.00 2.00

" " Fine mixed. 2.10 1.00

" " double, mixed. 25. 1.50

Babianus, mixed, fine for pot culture. . . 3.00 2.00

Calla, Ethiopica, extra large bulbs. . . 1.50 9.00

" " 1st size bulbs. 1.60 6.00

" Spotted, large bulbs. 1.00 6.00

Chionodoxa Lucida, "Clory of the Snow". . 3.00 2.00

Sardensis, new. 3.00 2.00

Crimson Capensis in var. extra large bulbs. 2.50 15.00

Ixias, mixed, fine for cutting. 1.50 10.00

Munbroeta Potini, new, rich scarlet. . . . 50 3.00

Muscari, feathered hyacinths and other
species. 25 1.50

Oxalis in named sorts, white, pink, etc. . . 25 1.50

" " in fine mixture. 15 1.00

Pancratium, in named sorts, large bulbs 1.50 10.00

Ranunculus, in fine mixture. 15 1.00

Scilla Peruviana, the blue "Cuban Lily". 1.00 6.00

Spargax, mixed, fine for cutting. 15 1.00

Trillium Grandiflorum, pure white. . . . 1.50 10.00

Trillium uniflorum, "Star Spring Flower". 1.00 6.00

T. lonicia crocata, mixed. 30 2.00

Watsonia, mixed. 60 4.00

For other bulbs, seeds and plants see catalogue.

Per doz. Per 100

Dormant Roses, dwarf, low budded, in
fine sorts. \$2.00 \$12.00

" Standards, in fine sorts 6.00 40.00

" Clematis, Dutch, Jackman and
other large flowering sorts. 6.00 45.00

Dormant Hydrangeas paniculata grand-
iflora, strong. 2.50 15.00

Abies Nordmanniana, large showy plants
for decoration, perfectly hardy. 9.00 60.00

Lily of the Valley, true fine slips, \$1 per 1000, 10.00
Per dozen case of 2,500 \$24.00

My list of CHRISTMAS GREENS, FLO-
RISTS' SUPPLIES, and other Flowers, etc.,
free to applicants in the trade.

ADDRESS **J. A. DE VEER,**

183 Water Street, NEW YORK,

Indianapolis.

The recent chrysanthemum show was not a financial success—that is there was no surplus—but all premiums and expenses were paid in full, and the beneficial effect of the exhibition is already apparent in an increased demand for flowers of first quality. Rubbished chrysanthemum blooms will have to take a back seat another season.

A fine exhibition of rose buds created a lively interest at the last show. M. A. Hunt, of Terre Haute, showed some Perles, which some eastern florists, who were present, said were the best ever shown anywhere. He also showed some fine Duchess of Albany, the coloring of which was notable. C. L. Mitchell and Hill & Co., also had fine exhibits of roses.

Seedling chrysanthemums entered in competition for the silver cup, and which were not mentioned by the judges, were considered to be no improvement on existing kinds.

The annual meeting of the State Hort. Society was held in the State House, December 3 to 5. Eighteen members of the local Florists' Club attended a session of the Hort. Society, and as a result of a conference with its officers a suitable horticultural hall will be arranged for at the State Fair grounds.

The annual meeting of the Society of Indiana Florists will be held at the State House, February 26 and 27.

A spring exhibition will probably be held by the local society in the city hall. Very few premiums will be offered, but a creditable display will be made by all prominent members.

Mrs. Henry Hilker died recently. The funeral was attended by members of the Florists' Club, who carried with them a suitable floral tribute. Henry Nicolai has been appointed executor of the estate.

B.

Washington, D. C.

At a recent dinner given to the members of the International Maritime Congress a slender, well proportioned light house made of chrysanthemums and surmounted by an electric light elicited general praise.

Chas. F. Hale has located in the West End in a store specially fitted up with sky lights, at 1020 Connecticut Ave., and makes a fine display. A. & W. B. Garden have opened an attractive establishment near by, and W. S. Clark who has heretofore represented Sutherland of Philadelphia, in the seed department among the commission merchants of B street has opened an establishment of his own at 609 12th street, and now keeps cut flowers, etc. Fisher has returned to his former location on Pennsylvania avenue.

Something of a novelty here in floral designs appeared recently on the occasion of the reception given Miss Clara Barton, president of the American Association of the Red Cross. It consisted of a miniature tent 18x24 inches and corresponding height, made up of Cape flowers. In front the flaps were turned back displaying an interior suitable for hospital purposes. Over the entrance a Greek cross in scarlet immortelles, on one side of the roof in purple letters appeared the donors name: Pontiac W. R. C.; on the other side Maltese cross in flame colored chrysanthemums. Stringers of green held the tent fast to a neat base of matted ivy leaves. A miniature American flag and the Red Cross standard waved from the staff. The whole presented a decidedly unique appearance—proportions being well preserved and colors in good taste. Small & Sons were the designers. Z.

NEW AMERICAN CHRYSANTHEMUMS.

HILL & CO.'S SET OF 12 will be ready for delivery March 1st, 1890. These are the products of some of the best raisers in this country. The list includes

HARRY E. WIDENER, winner of the Blanc prize at Philadelphia show.

JOHN LANE, a magnificent pink, raised by W. K. Harris.

MRS. J. K. EMLEN, an improvement over Mrs. A. Carnegie.

CROWN PRINCE, of the Wheeler type, petals 3/4-inch in width.

MOLLY BAWN, a pure white sport from Syringa, two years.

CLARA REIMEN, rich lavender rose in color. Certificate of merit.

CARRIE DENNY, clear amber, entirely distinct from anything in cultivation.

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MRS. EDMUND SMITH, a beautiful fine white, of an entirely new type of flower.

ROBERT S. BROWN, four times as large as John Welsh with the same intense color.

MISS MARY WEIGHTMAN, chrome yellow; large flowers, 10 in. in diameter.

Lists on application, with descriptions of the twelve. Orders booked in rotation.

PRICE, PER SET OF TWELVE, \$10.

We have arranged to offer Mr. T. H. Spaulding's new set, also Mr. H. Waterer's new ones for 1890. Same price as the raisers.

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We shall be pleased to make prices on lists of Chrysanthemums. All the New Prize Winners of this year (1889) in quantity for Jan. delivery.

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A fine strain of single Primroses, 4 inch pots, at \$3.00 per 100; 3 inch pots at \$5.00 per 100.

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Strong plants, at \$1.50 per dozen.

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Good strong plants, in 3-inch pots, at \$3.00 per 100, \$25.00 per 1000.

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Rooted Cuttings, special color,75
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CASH. No business done on Lord's day.

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Achyranthes	3 00
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St. Paul.

At a meeting of the florists of this city held some weeks since, the St. Paul Florists' Club was organized and officers elected as follows: President, A. H. Bunde; Vice-President, J. Fleischer; Secretary, Louis Venzke; and an Executive Committee of three, one of which will be elected at each monthly meeting to serve three months. This committee will arrange a scale of prices every two weeks, which the members of the club agree to abide by. This action was necessary on account of dull times, poor business and close competition. The cutting of prices had been so recklessly indulged in that we were losing money on everything we sold. It is hoped that harmony will now prevail and that all will be benefitted alike.

Business has been very dull here the past summer and the outlook for the winter season is not as encouraging as it might be. Flowers are plentiful and the quality is good, thanks to the splendid weather we have had this fall.

A great deal of new glass has been added the past summer and the supply seems to have increased at a more rapid rate than the demand. Two new stores have been opened here this fall. The same may be said of our sister city, Minneapolis, and florists there are complaining.

The Society of Minnesota Florists held a special meeting November 19 for the purpose of discussing the chrysanthemum, and quite an exhibit of cut blooms, containing some 200 varieties, was shown, some very good ones among them, although the season has been rather unfavorable. Ang. S. Swanson read a paper on the cultivation of chrysanthemums for exhibition. Quite a lively discussion was had on a statement by the essayist to the effect that he preferred cuttings from the branches of the plant to those from suckers, claiming that better plants could be grown from the first named cuttings. The prevailing opinion expressed by other members who took part in the discussion was contrary to the position taken by the essayist. I think that many would be glad to hear the opinions of other chrysanthemum growers on this point through the columns of the Florist. It would be a good thing to have the matter definitely settled.

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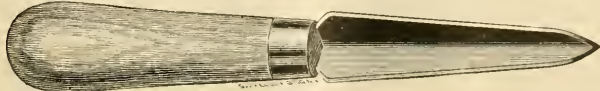
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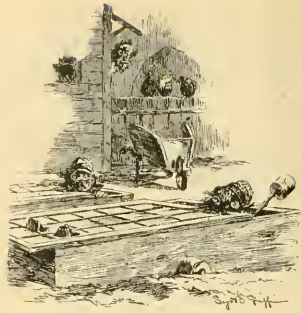
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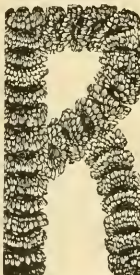
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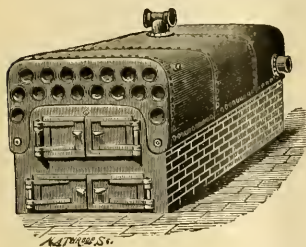
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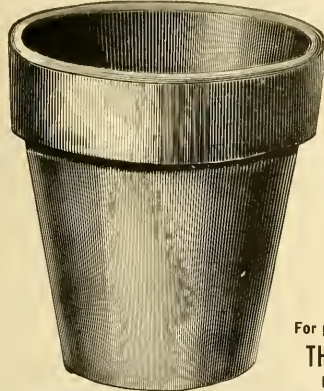
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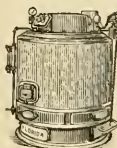


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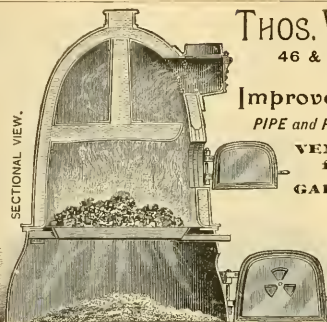
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Index to Advertisers.

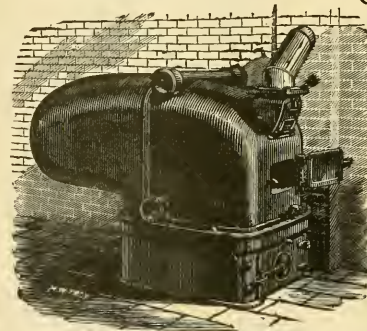
Advertising Rates, etc.	212
Aldine Printing Wks.	222
Allen S. L. & Co.	221
Allen, W. S.	213
Association Flora	217
Bayersdorfer M. M. & Co.	222
Benard G.	216
Berger, H. H. & Co.	220
Blackley Printing Co.	221
Blanc A.	215
Brace L. B.	215
Brackenridge & Co.	220
Brown R. & Son.	219
Burki Fred.	215
Burrow J. G.	215
Caldwell Geo. W.	215
Carmony J. D.	221
Connelly John.	222
De Veer J. A.	217
Devine, Peter.	223
Dies, John L. & Co.	223
Dillon, J. L.	213
Dreer, H. A.	217
Dresel, James.	218
Fisher Bros & Co.	215
Fish Chas. H.	213
Flora Supply Co.	221
Fuchs Albert.	218
Fuellerer P. C.	223
Garden Pub. Co.	212
Gardner J. & Co.	216
Garfield Park Rose Co.	213
George M. & Co.	214
Greene W. W. Son & Sayles.	215
Griffith, Jas.	222
Griffith, N. S.	220
Hales, H. W.	218
Hallcock, V. H. & Son.	217
Hammond, Ben.	219
Hammond & Hunter.	213
Hartland W. B.	217
Herendeen Mfg. Co.	224
Herr, Albert M.	218
Hill & Co.	218
Hippard E.	223
Hitchings & Co.	224
Hooker, H. M.	222
Horan, Edw. C.	215
Hoyt R. D.	220
Hudson John M.	213
Hughes E. G.	222
Ives, J. H.	218
Jewett Z. K.	221
Johnson & Stokes.	222
Jordan J. M.	211
Keenan T. F.	215
Kenneth Brok.	213
King Jas.	217
Kramer I. N. & Son.	215
Krick W. C.	222
Krombach Charles.	221

La Roche & Stahl.	213
Laurence J.	215
Lockland Lumber Co.	222
Long George A.	210
Low Hugh & Co.	220
McCarthy N. F. & Co.	213
McFarland J. Horace.	215
Marc Gabriel & Co.	216
Mathers, Wm.	220
Merrick, A. T.	221
Mette Henry.	219
Michel Plant & Seed.	219
Miller, Geo. W.	218
Mullen Geo.	212
Nanz & Neuner.	216
Oelschig A. C.	215
Palmer John & Son.	218
Pennock Chas. E.	213
Pierce Butler & Pierce.	223
Plenty, Josephus.	223
Quaker City Mch. Wks.	222
Reed & Keller.	222
Reard J. Os.	219
Riechers F. A. & Sohne.	216
Roiker, A. & Sons.	218
Russ & Millang.	215
Rupp John E.	220
Sander F. & Co.	220
Schneider Fred.	219
Schulz Jacob.	216
Scollay, John A.	224
Sessions Kate O.	217
Sheridan W. F.	213
Siebrecht & Wadler.	216
Sievers John H.	216
Sipke Doptie & Co.	223
Situations, Wants.	224
Smith David.	224
Smith George.	219
Smith & Smith.	222
Spooner, Wm. H.	216
Starr Chas. T.	219
Steffens Wm.	222
Stewart, Wm. J.	213
Strass C. & Co.	213
Sunder N. Y.	220
Thompson Mrs. J. S. R.	216
Trischler M. & Son.	218
Van der Schoot & Son.	217
Vaughan, J. C.	213
Weathered, Thos. W.	224
Welch Bros.	213
Whilldin Pottery Co.	223
Wilks S. Mfg. Co.	223
Williams H. W. & Son.	223
Wisconsin Flower Ex.	213
Withold Geo.	216
Wood Bros.	216
Woodruff W. B.	218
Young, Thos. Jr.	213



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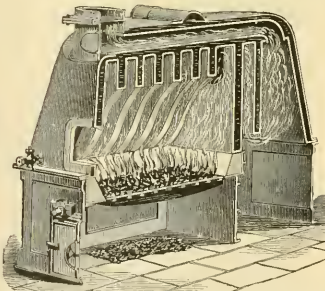
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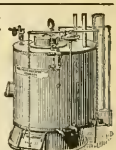
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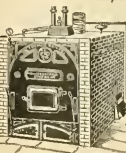
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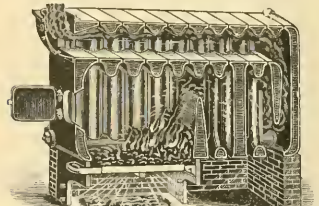
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Vol. V. CHICAGO AND NEW YORK, JANUARY 1, 1890. No. 106.

THE AMERICAN FLORIST

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AMERICAN FLORIST COMPANY.

54 La Salle Street, CHICAGO.

SOCIETY OF AMERICAN FLORISTS.

J. M. JORDAN, St. Louis, Mo., president; M. H. NORTON, Boston, Mass., vice president; Wm. J. STEWART, 6 Bromfield St., Boston, Mass., secretary; M. A. HUNT, Terre Haute, Ind., treasurer. The sixth annual meeting at Boston, Mass., August, 19, 20, 21, 22, 1890.

CONTENTS.

Christmas greens	225
Nomenclature	225
New varieties	226
What is a disease	226
An enjoyable event	226
The night man	226
Vase of chrysanthemums (illustration)	227
Begonia incarnata (rosea) grandiflora	227
New chrysanthemum for 1890	228
Chrysanthemum H. J. Widener (with illus. spoiling the chrysanthemum	229
New carnations	230
Roses—seasonable notes	230
Notes on new roses	230
Quassia for rose bugs	231
Rose "The Rainbow"	231
Chrysanthemum Mrs. B. Harrison (with illus)	231
The "Spider Lily"	231
Orchids as cut flowers	232
Obituary—John Henderson	233
Washington	233
Chicago	233
Rubber packing	233
The Ginkgo tree	234
Nomenclature	236
The National Chrysanthemum Society	236
Something new	236
Improved varieties	236
The ideal chrysanthemum	236
Catalogues received	236
Boston notes	236
Forcing the gladiolus	236
Cut flower prices	237
Duty on bulbs, etc.	238
Montreal	238
Rubber packing	238
Musa ensete	240
Keeping down greenfly	242
Variegated Musa ensete	244
Hot water in zinc pipe	246

SUBSCRIPTIONS for the AMERICAN FLORIST may be left with any of the following:

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Christmas Greens.

This trade embracing by a liberal interpretation holly, lycopodium, mistletoe and Christmas trees, plays nowadays no small part in the florists' holiday trade. Neither is the full supply of such stock provided at the right time in salable condition a small matter, for all are easily spoiled, in demand but a few days and really profitable only when in best condition. The season just passing may be called one of scarcity. Lycopodium was early covered by snows in the northern woods which never sufficiently disappeared to renew the picking, hence the supply provided was limited as well as somewhat dried up and brown from having been gathered so early; only the most cautious of the wholesale dealers were able to fill contracts with first class stock.

The holly supply, while not a short one, was much poorer in quality than last year, the holly trees seem to have a "bearing year," as do many of our fruit trees, and this was not that kind of a year. The rains of the last week in November filled the holly swamps with water and delayed the gathering, which retarded many shipments, while the warm weather must have injured the stock after packing, for many cases though gathered as late as possible proved brown on opening and others received in good order soon faded. There is little doubt that holly must be kept as cold as possible, down to 30° to hold it bright and fresh. The holly trade is certainly on the increase, the florists were hardly hopeful enough to order a proper supply early and the result has been added expense in express charges to provide for the sharp demand experienced the five days before Christmas. The wholesale men claim a season of short supply is necessary to remind buyers how important it is to order these supplies in ample season at low contract prices, providing as nearly as is possible with such stock, for its delivery at proper time and lowest transportation charges.

Mistletoe is one of those items of which it may be safely said "it costs more trouble than it is worth." It is more easily damaged by heat or cold than any of the others; the imported article overhauled on the ocean steamers and the domestic freezing before arrival in the northern market. The past two seasons have been mild and the southern stock when it did come arrived in fair order and sold readily. Further trouble comes from the unreliability of some southern dealers, the slow freight deliveries and high express tariffs, all of which combined make it possible to say of it that you never know you have it till it comes.

A suggestion here to those who have not a "calendar of seasonal operations," make note that green or holly should be ordered by October 15. The amount of wreathmaking made and sold, the number of

holly and green wreaths sold, the relative demand for all of this and similar stock and the days of greatest demand should all be carefully noted that the great law of supply and demand may another season be fairly met by you in this direction.

Some of our readers may not be acquainted with the full line of odds and ends of Christmas decorations retailed in the larger cities; we mention here a few of those not named above: fan palm leaves, Georgia or southern needle pines, Florida grey moss, bells of scarlet immortelles, pampas plumes, these mostly sell well; grass bouquets will sell to a class of customers who can not afford fresh flowers at Christmas.

Nomenclature.

In continuation of Mr. Whittle's remarks on nomenclature I wish to say that the committee appointed by the national society a year ago did not so far as I have been able to learn, make any effort to accomplish anything. The FLORIST has frequently suggested that members having any information pertaining to the subject should forward it to this committee, but outside of the FLORIST's efforts nothing has been done. Such a committee is no good; it was their business to map out some plan of action, to determine what course to pursue and after doing so to make the announcement to the society at large so that all interested could tell how to take hold and where to fall into line.

I should like to suggest a plan which I think if adopted would start the ball rolling and would overcome some difficulties which now exist, it is this: The executive committee of the national society to act as a supreme court, each vice-president as a district attorney for the state which he represents. It shall be the duty of each V. P. to work up every case which is brought to his attention inside his state, and as soon as he has all the details arranged he must notify the secretary of his having a question to be decided, at the same time explaining the nature of the case. It will then be the duty of the secretary to notify the V. P. when and where the committee will meet and consider his question, requesting him to be on hand and present the case. If it should be a complaint arising from some alleged fraudulent practice the defendant should also be notified to be on hand, if it is a new plant requesting a certificate of merit, the V. P. must provide a sample, photographs, testimony, etc. The committee must have the right to employ an expert in special cases where they see fit, all reports, decisions and awards to be published in the annual report of the S. A. F.

The first question I should wish to submit to this honorable body is: What is a

florist? I call myself a florist, I have read the AMERICAN FLORIST carefully since its first publication, and have taken an interest in the S. A. F., etc., also have I consulted Webster's Dictionary. The difficulty is this: We florists have been changing our habits from year to year until Webster's definition is too narrow. It does not cover the ground. Webster says: "one skilled in the cultivation or care of flowers." I should call such a person a gardener, but does any one cultivate flowers or do they cultivate blooming plants? A person who keeps a city store and purchases his stock, although he handles quantities, arranges them beautifully, etc., is not a florist.

C. B. W.

New Varieties.

In an article on nomenclature Mr. Whittle decries the influx of so many new varieties of plants of inferior merit. "Why don't he criticise the inferior new varieties?" as he says the critic of new literature criticises our books. But it is a well known fact that the literary critic is not always correct in his criticism, and that a book or play has been an unprecedented success in spite of adverse criticism, and vice versa. We have a number of similar examples in the case of plants where men supposed to be competent judges and skilled horticulturists have discarded varieties as worthless, while others have made the culture of the same varieties a complete success.

I am afraid Mr. Whittle will have to advance a better solution of the problem than committees or experimental gardens, and revert to the old way of spending a little cash; or let the new plants alone and patiently wait and admire his more enterprising brother horticulturists' success; or better still, give his attention to raising new varieties, give his brother florists the benefit of his criticism on them and enshrine his name in the annals of horticulture as a benefactor to the trade and the lovers of floriculture in general.

Furthermore, he can turn his attention to establishing horticultural exhibitions in every town and hamlet in his vicinity, enlist the masses, offer premiums for new and old plants, appoint competent judges as critics, and the people will supply the experimental gardens. After he has successfully completed his task in his own vicinity he can communicate his experience and advocate his methods to the country at large, he might then be appointed secretary and horticultural critic, for say the confederation of horticultural societies of the U. S. A.

Fairfield, Conn. JOHN DALLAS.

What is a Disease?

At a recent meeting of the Baltimore Florist Club this question brought out considerable discussion and a diversity of opinion was expressed.

I especially desired further information regarding what is called the "aster disease" which has been mentioned several times in the FLORIST. Mr. Thorpe opened my eyes when he stated that an insect was the cause of the "disease" which resulted in the death of the plant in a day or so, especially when in bud. I know that when Mr. Thorpe makes a statement of this kind he has had evidence to base it upon, so I was much surprised, as I have never found any insects in my asters which have suffered from the ravages of the disease. Every year I have lost a lot of plants from this pest whatever it may be, and for the last two years

have been experimenting. I find that where planted in virgin soil no plants are attacked, in other soil without manure but a few are lost, but as soon as I give manure—no matter how old—I am bound to lose them all. I planted about 100 plants in a pansy bed, the soil of which was very rich and they all died when the flower buds were ready to open. Next to them I planted the same number in virgin soil without manure and none of them died.

Mr. Fraser claimed that whether the death of the plants was caused by an insect or an overdose of humus it was not a disease. That if the plants were overed it was due to mismanagement, and if killed by an insect their death was the result of accident. He instanced the violet "disease" as another case of the same kind and both he and Mr. McRoberts maintained that if a disease it would be general among all the violets grown in this vicinity, whereas some growers' violets were as healthy as they could possibly be while near by other growers had been forced to abandon the culture of the violet on account of the disease. The statement was made: "If you can not grow a plant in your soil or locality give it up, but do not call the failure the result of disease." It was also held that mildew on roses is not a disease, "only a fungus for the growth of which proper conditions were supplied by a draught or some similar cause which with proper care would have been avoided." I am now anxious to know what may be considered a disease. ED. HERKMANN.

Baltimore.

An Enjoyable Event.

The opening of the reading room and bowling alley of the New Jersey Social Florists' Club at Mr. John N. May's, Summit, N. J., is deserving of more than a passing notice. It was one of the most pleasant occasions that it has been our privilege to enjoy. And this every person can understand who has had the pleasure of Mr. and Mrs. May's hospitality on other occasions.

The New Jersey Social Florists' Club is fortunate in having its headquarters at Summit, and with such a presiding genius at its head as Mr. May. No detail, no matter how small, was overlooked in the arrangements for making its guests feel at home. Many were the favorable comments made upon the busy minds which conceived and the willing hands which executed these details.

The ceiling was completely covered with cedar boughs and the chandeliers were draped with the ever-graceful smilax, while the tables were decorated profusely with cut roses and other flowers, and pot plants of *Dracena fragrans* and *Pandanus Veitchii* added wonderfully to the tasteful decorations.

The menu was an elaborate one, to which ample justice was done as only the keen appetite of a tiller of the soil can do, after which came the "feast of wit and flow of soul." About 100 members and friends of the craft sat down at the banquet.

Mr. May presided and acted as toast master. Speeches, singing and instrumental music was kept up without intermission until a rather late hour.

A more distinguished gathering of the craft outside of a regular meeting of the S. A. F. was never seen in this country before. There were all the ex-presidents of the society present—John Thorpe, Robert Craig, E. G. Hill, and our worthy host J. N. May. Secretary Stewart, P. Norton and other notables from Boston

were there. The horticultural press was ably represented in the person of W. A. Stiles of the *Garden and Forest*. From Philadelphia in addition to R. Craig were John Westcott, C. F. Evans, W. K. Harris, John Burton and G. C. Watson. James Taplin and all the well known growers and retailers in and around New York added lustre to the assemblage. Of course J. A. Penman was there.

It will ever be remembered as a bright spot in the lives of all who had the good fortune to be present.

EDWIN LONSDALE.

Vase of Chrysanthemums.

The accompanying photo-process plate is from a photograph of a vase of chrysanthemums, the majority being recent introductions, as shown by the names attached. The engraving has been kindly loaned to us by Mr. A. Blanc, the Philadelphia engraver.

The Night Man.

Do you keep a man on duty all night? Some do, some don't. In large greenhouse establishments it is considered the proper thing to do, but in lesser ones it might seem superfluous. A man on duty all night means one man less for work in the daytime. But this depends.

We have a night man, have had one for years, and I regard him as one of the most useful helps I have got. The night duty lasts between the end of November and the first of April. He comes on at 7 p. m. and stays on duty till 6 a. m., and he comes to work. He is a handy laborer accustomed to work about a greenhouse. The proper temperature is written up in each greenhouse and this heat he maintains exactly. And he does all manner of plain potting, pricking off seedlings, putting in cuttings, pointing, dipping and preparing stakes, painting labels, cleaning seeds, picking moss, mending wooden flats, and a host of other little jobs incidental about a greenhouse and which have got to be done anyway. And he wages war upon snails, cockroaches and mice. If it turns suddenly frosty at night he is there and will spread the mats on the cold frames in winter and hothods towards spring—I now run 200 sashes of cold frames, more than half of them filled with vegetables as lettuce, parsley, spinach, etc.—and will turn on a little heat in the warm frames. If a storm comes up in the night time and blows the mat or thatch off of a corner of a frame or a pane of glass out of a greenhouse, the night man is around and looking for just such mislapses to rectify them. Yes, and if need be he will saw hard wood for the pump engine, but he doesn't like this job.

And he saves me a great deal of work in another direction. After the first of December we can not trust the weather, it may be warm enough in the evening and blow up cold before morning. Were it not for the night man this would necessitate covering up our frames every afternoon before dark and, in fine weather, uncovering them again next morning; with him on duty, however, we don't cover our frames unless the indications are positively for cold, if cold should spring up in the night time he can soon spread mats or thatch enough to save things till morning.

He can cut, sort and pack flowers. And I have no occasion to fret about things at home if I am away from home at night, and there is always some one to hitch up and meet me if I am coming home late, for our place is three miles from the railroad station.



*Sam Houston,
Thos. Carledge.*

*Excellent
J. J. Bailey.*

*Mrs. Fötter.
Mary Ward,
G. F. Noseman.*

*Mrs. Pres. Harrison,
Mrs. Frank Thompson.*

VASE OF CHRYSANTHEMUMS

He is peculiarly religious. On Saturday night beyond filling up the tanks and his duties of attention, he will do no potting, staking or other work because to-morrow is Sunday, and on Sunday night beyond his duties of attending to fires and things and hunting for slugs he will do no work because it is the Sabbath.

Now, it is well to humor the night man in the way of work. He hates washing pots and sawing wood. But he delights in potting, pricking off seedlings, making and putting in cuttings and nice little jobs of this sort, and he will do good work and lots of it too.

Go out and see him every night before bed time, and go around the place with

him, it will satisfy yourself, break the monotony for him and cheer him up a bit.

With a night man on duty everything goes along like clockwork and systematically, and you needn't worry yourself half to death, or ruin your health by jumping up out of bed and running out to fix your fires at 2 o'clock in the morning, maybe lying awake till then lest you should oversleep yourself.

I know a good deal about the old—and yet common—system of one man attending to the fires at night before midnight, and another getting up early in the morning to see to them; I have done it myself, and for years used to have it done for me, but, really, I would not entertain it one

minute to-day—the night man is by far the safest, most pleasant and profitable.

WM. FALCONER.

Begonia Incarnata (rosea) Grandiflora.

Had several inquiries concerning this most useful plant since I called attention to it in these columns, as to the proper treatment, but can not say much more than I have said formerly, only I must add that it never should be allowed to fill the pot entirely with roots if you want it to retain its foliage in a good healthy condition. If repotting is neglected the foliage will soon turn yellowish and smaller leaves will be produced on the

new growth. In order to get the best results we should keep them growing vigorously from the first start until all the flowering branches are cut. I have a house full of them now (December 15) and have been cutting therefrom for a month or more, but on examination we find that very few roots have penetrated the soil and barely show at the edge of the pots. We keep them in a rather cool house with plenty of air on in favorable weather and never give them too much water. If kept on the dry side the flowers will be of a much brighter and darker color than in a warmer place or if given abundance of water. As to the soil we use it is only decayed sod and thoroughly rotted manure of any kind with good drainage in the bottom of the pot. If bone, or in fact any artificial manure, is used it should be but very little of it or you will surely spoil your plants entirely and I should rather not use any if well decomposed cow or stable manure is not available. I also find that young plants invariably do best with me, even cuttings made very late in May will make plants of ample size in 6-inch pots and be covered with bright pink large clusters of flowers for Christmas and New Years, while old plants will begin to bloom much sooner, but the foliage will generally be rather small and the clusters of flowers have the same defect, unless you would allow them extra large pots.

I am very much pleased to hear that this plant is now grown more extensively in place of the older common *B. incarnata*, and also that it is thought of most favorably by many as a decorative plant, not only for the holidays in churches etc., but also as a house plant. I have seen it at a number of places this fall and found that in most cases no difficulty was experienced in growing it to perfection, only a few instances of partial failure came to my notice, but perhaps repotting was not attended to in time or some artificial stimulant may have been used to excess or manure was not very old when mixed into the soil; surely one of these conditions must have existed or else the plants would be uniform in size and in healthfulness. Everybody, however, thinks it a decided improvement on the old variety and just as easy to grow.

Rochester, N. Y. JOHN B. KELLER.



New Chrysanthemums for 1890 Which Originated in Philadelphia.

This has been a remarkable year for new chrysanthemums, and as Philadelphia has added perhaps more than its quota of sterling varieties to the list, and as many of them have flowered since the closing of the shows, a few notes about those that are likely to render a good account of themselves in the future may not be out of place at this time.

H. Waterer has the honor of having distributed many of the very best chrysanthemums for this climate that are now in cultivation. A collection of some 25 or 30 varieties which were imported direct from Japan, under numbers, and disseminated in the springs of 1884 and

1885, contained some sorts that may still be found in prize winning collections. Among them may be mentioned, as subsequently named by Mr. Waterer: Mrs. Charles Wheeler, Mrs. Frank Thompson, Snow Storm, Robert Bottomly, Glorissimo, Mrs. George Bullock, Syringa, Jessica, J. Collins, President Arthur, "H. Waterer" and many others. For a year or two there was some confusion as to the names, as they were propagated and sent out before they flowered, and it was discovered that the numbers had not proved reliable, and this may account for the fact that the Europeans, sometimes, accuse their American cousins of carelessness, or something worse. Happily that time has passed and the leading florists and dealers of this country are as conscientious as the same class of men are to be found in any other country. That collection of Mr. Waterer's marked what might be termed an era in the chrysanthemum in this country, and it is from that collection and the descendants thereof that the new and improved varieties are still coming.

Mr. W. K. Harris was the first to undertake the raising of seedlings in this city, which was commenced in a modest and unostentatious way, but now his seedlings number in the thousands and he devotes several houses to their culture and development.

Mr. Thomas Monahan, gardener to C. W. Trotter, Esq., Chestnut Hill, has also been very fortunate in his productions. His "Edwin H. Fidler" stands alone as one of the most distinct varieties ever introduced. Its weak spot is its constitution. It is what is termed a "poor grower," but when found in good condition it is grand.

Mr. Robert Carey, gardener for T. C. Price, Esq., of Chestnut Hill, was the fortunate originator of the now well known "T. C. Price."

Mr. William Jamison, gardener for R. D. Mason, Esq., of Germantown, must be congratulated on his production of the novelty of the year "Harry Elkins Widener," of which more anon.

Mr. John McCleary, gardener for John Weightman, Esq., also Germantown, enters the list as a raiser. His "Miss Mary Weightman" is a very good one, and will be noticed at greater length later on.

Mr. Henry Surman, gardener for E. W. Clark, Esq., has also been a prize winner with his seedlings. His "Mrs. E. W. Clark" is well known wherever good chrysanthemums are grown.

A list of the varieties which Mr. Waterer disseminated last spring will give an idea of the standard of his more recent introductions, most of which were raised by Mr. W. K. Harris, to wit: Mrs. Wm. K. Harris, Violet Rose, Ivory, Excellent, Miss Annie Hartshorne, Wm. Dewar and Thos. C. Price.

Those which he intends to send out spring 1890 are as follows:

Reward (Harris), reddish maroon, very distinct in color, immense spreading flowers.

President Harrison (Monahan), so named by the raiser early in the morning of the day after the last Presidential election. The flower is cup shaped, red in color with a dash of yellow, giving it a salmon tint, deep red center, enormous flowers, a good grower.

Mrs. Frank Clinton (Harris), very light canary color, full to the center, of good habit, quite distinct.

Eclipse, bright mahogany red in color, very effective, good grower, incurved.

Model, a pleasing shade of pink, some-

what deeper than Lilian B. Bird, flower perfectly double. In shape resembling "Gold."

Comet, very full flower, yellow center, outer petal florets white and drooping, large.

White Cap, white in color at top, deep violet purple beneath, incurved when first open, afterwards drooping, very distinct.

Twilight, large flat full flower, in shape similar to Excellent (one of last year's introductions), lemon yellow center, outer petal florets white.

Edwin Lonsdale, said to be the deepest and richest colored variety in cultivation—the color of "old port" wine—flower very large and full, habit of plant dwarf.

Mrs. Charles Dissel, immense flower, incurved, light but bright pink in color, a great improvement on Mrs. Frank Thompson, one of the largest chrysanthemums ever brought before the public, and one of the best of the year.

The following will be sent out by Messrs. Hill & Co., Richmond, Indiana. Many of them having been selected by Mr. Robert Craig, whose judgment in such matters can be entirely depended upon, as witness the collection sent out by Craig & Bro. last spring: Mrs. Irving Clark, Mrs. Mary J. Thomas, Mrs. Isaac C. Price, Edwin H. Fidler, Mrs. Joel J. Bailey, Mrs. A. Blanc, W. W. Coles, L. Caming, Sunnyside, Dr. Stryker, Mrs. Levi P. Morton and some others.

The list above referred to, to be distributed next spring follows:

Harry Elkins Widener is one of the best chrysanthemum ever raised. It was awarded the "Blanc Prize" at the last show held in Philadelphia. It originated with William Jamison. It was purchased by Hugh Graham's Son, and by him disposed of to Craig & Bro., who in turn sold it to Hill & Co. Several disseminators of new and improved chrysanthemums tried to buy it. The price paid was \$300. In color it is lighter than grandiflorum, a bright lemon and larger in size, incurved and carried on stiff erect stems. Grand for either exhibition or cut flower purposes.

Crown Prince (T. Monahan), a magnificent incurved flower in the way of Mrs. Charles Wheeler, but it is more than twice as large. In color it is crimson on upper surface of floret petals and bronzy yellow beneath.

Mrs. J. T. Emlen (Monahan). This is a decided improvement on "Mrs. Carnegie." It is a good grower and throws its flowers well up on strong and erect stems.

Molley Bawn (Monahan), is a pure white sport from Syringa. Good for any purpose.

Mrs. Winthrop Sargeant (Harris), very pale yellow, a new shade, difficult to describe, large flowers, incurved, freely produced on stout stems, a fine flower.

Mrs. Edmund Smith (Harris), a beautiful and pure white with long and narrow petal florets, which are beautifully interlaced, they are of great substance, lasting a long time in perfection. Exquisite.

Carrie Denny (Harris), another new color, a deep rich shade, suggestive of amber, incurved.

Miss Mary Weightman (McCleary). In the way of Mrs. Wm. Mencke, but much larger, and it comes into bloom at least two weeks earlier.

Robert S. Brown (Monahan), similar in color to Hon. John Welsh—a rich deep purple. It is a healthy grower, an abundant bloomer, and the flowers are four times as large, and apparently possessing more substance than the older variety.



CHRYSANTHEMUM HARRY E. WIDENER.

John Lane (Harris), incurved, lovely pink in color, very large, good for any purpose, but especially so for cut flowers, pronounced the best of the color up to date.

If most of the above are not found in every winning collection next autumn, both as cut flowers and specimen plants, I shall be very much mistaken.

EDWIN LOXSDALE.

Wyndmoor, Dec. 24, 1889.

Chrysanthemum Harry E. Widener.

This has been pronounced by competent judges to be one of the very best new chrysanthemums and the finest yellow yet produced. It is bright lemon yellow in color, flowers large, borne on stout

stems, the plant of excellent habit. This is the variety which received the Blanc prize, a silver cup, at the Philadelphia show. The engraving is about two thirds the size of the flowers exhibited, and is from Mr. A. Blanc, the Philadelphia engraver.

Spoiling the Chrysanthemum.

The florists and gardeners are at their old tricks again, and all the beauty and grace of the chrysanthemum are being destroyed. In their place we have objects as artistic and delightful as the cauliflower, that pride of horticulture, or as charming to view as that handsome object, the cricket ball. The average gar-

dener considers a good incurved chrysanthemum as the perfection of beauty and art. To any lover of flowers, to say nothing of any person with any artistic sense, the incurved section are simply hideous monstrosities. Then to hear of their being curled, and frilled, and set with other petals and gum is as disgusting as to see people frizzed, or dyed, or made beautiful for ever by Mme. Rachel. Surely such vulgarities should be eschewed in the garden of all places.

People were formerly in the hands of the gardeners and florists in such matters. They laid down that a carnation must be an exact circle, that a pansy should be something else, and that an auricula should assume such and such a form, and

the public accepted their decision blindly. A better era has now dawned, and employers can indulge their sense of artistic propriety without being considered to be heathens. Surely the chrysanthemum can be saved from the doom of the double dahlia, which has gone to a limbo where it can rest with cut turnip flowers and the ghosts of ribbon borders. What was it that pleased

The gentleman of Japan
(in many a vase and jar?)

Was it not the beautiful irregularity, the disorder in order of his native chrysanthemum? Are the tasteless people who squeeze out the flowers flat on a card, and curl their petals with ivory tongs, and snip them with special tweezers, and insert foreign petals with some other tool, to deprive us of all this grace and beauty? Are the lovely Japanese petals to be thickened and fattened till they look like the petals of *Globe artichokes*? Are the flowers to lose all their graceful outline, and to be reduced to the beautiful round contour of the incurved section? Truly, I hope not. Let all who care for gardening discard not only incurved chrysanthemums, but all the recent mongrel Japanese that ape them. Let them seek beauty of petal and form and color, and see that the schedules of shows are no longer drawn up by ignorant and tasteless persons, such as those who too often prepare them. For instance, few local shows offer any prizes for the beautiful single chrysanthemums.

There is another point in connection with chrysanthemums. Why should we be driven to have plants like broomsticks with a flower or two at the top? Is that the sort of plant that you see on the vases, the fans, or the screens of Japan? Is size or is beauty the object we should aim at in floriculture? Would a six feet high plant with one flower at the end as big as a cabbage give us as much pleasure as a short plant covered, as it naturally would be, with full blown and partially expanded flowers, buds and foliage? These questions answer themselves.—*J. R., in London Garden.*

New Carnations.

Mr. Fred Dorner, La Fayette, Ind., sends us a box of blooms of seedling carnations, and every one is of decided excellence.

Ben Hur is $2\frac{1}{2}$ inches in diameter, has a solid calyx and is borne on stout stem clothed with strong, handsome foliage. The color is bluish pink, a shade which should make it a seller as a cut flower.

Mrs. Harrison is a white variety which will make the now favorite whites hustle to maintain their position. In size it is as large as Ben Hur, a full handsomely formed flower, with solid calyx and good stem.

No. 34 is a remarkably handsome shade of deep rose pink and possesses all the qualities of a first-class flower.

Hoosier is deeper in shade than the foregoing, and such flowers as are now before us would gladden the heart of the retailer. Such large, handsome, solid flowers on such strong stems are not often seen, and these characteristics are just what we want in a cut flower.

Teumisch is a rich crimson in shade, but the flower before us is rather past its best, and we hesitate to pass an opinion upon it in its present condition.

No. 4 is in the way of Hoosier though of a darker shade.

Indiana is a large, well formed flower of mixed shades of carmine and light pink, and while the raiser has named it

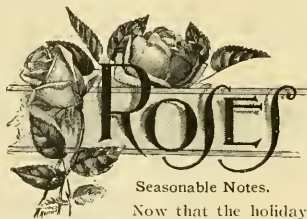
after his state it strikes us as the least valuable of any in the collection.

Certainly we are rejoiced that American florists are obtaining such excellent results from their efforts to improve florists' flowers, and we trust that we may be privileged to record many such successful efforts in the near future. We are informed that Mr. Dorner has worked very systematically, keeping a record of each cross, so that he is enabled to name the parents of each of his seedlings.

CARNATION LIZZIE MCGOWAN.—We have received a dozen blooms of this new white carnation from the raiser, Mr. John McGowan, Orange, N. J. The flowers are of good size, well formed and that the variety possesses merit there is little doubt. Mr. McGowan states that the plant is very similar in habit to the old DeGraw, and the flowers are certainly superior to those of that good old sort.

CARNATION LUCIA.—This is a seedling raised by Mr. F. Timme, Irving Park, Ill. It strongly resembles Garfield but as seen recently it may be considered an improvement on that excellent sort.

BEST SIX CARNATIONS.—Will some one please name the best six cut flower carnations for a beginner? W. C.



Seasonable Notes.

Now that the holidays are past growers will have more time to calculate on the merits of the different varieties they have been growing and be able to judge which are the most suitable and profitable kinds to grow, and bend their energies accordingly. While some varieties may be more suitable to certain soils or locations than others, still all the varieties can be grown in any good soil, providing they get the attention and good houses necessary for the same. It seems hardly necessary to repeat the same words so often, yet scarcely a day passes but we hear of some one failing with certain kinds, and if the cause is traced down to its foundation the reason for failure appears very simple. Still they persist in inviting failure by the very treatment given to the plants and there are so many ways to do this that it's not surprising after all. One will give a heavy mulching of green or almost green manure, then wash its strength down to the roots by a liberal watering and shortly after will wonder what can possibly be the matter with his roses. Another will keep the houses at an unreasonably high temperature night and day till almost roasting the plants, they fail to produce any more roses. What can be the matter with them? Is the cry from that quarter. And so we might go on enumerating many and various forms of complaints. But if we could only get the poor plants themselves to give us a version from many quarters what a cry would be sent up, and many of us growers would come in for a very heavy share of abuse.

I often think on reading accounts of what the society for the prevention of cruelty to animals is doing, that a similar society for prevention of cruelty to plants would be a good thing, and perhaps

would work some reform in that line. In my younger days in several establishments with which I was quite familiar they had greenhouses specially set apart as hospitals for all invalids, though in some cases the treatment the poor plants received in them was as much contrary to their wants as some animal patients get at our modern hospitals. Still the idea is a good one to put into practice and if we would set about it I think we should with our present system of growing plants have more than an abundance of applicants for treatment at all times. One of the worst diseases that modern physicians have to contend with is "delirium tremens," and I think there is more trouble with rose growing to-day from the same causes which produce that disease than any other one class of treatment. This no doubt will look like an absurd thing to say, yet it is an absolute fact, and the sooner this matter is thought out in a practical common sense way and our system of cultivation changed to a more rational one, the better it will be for the poor roses as well as their owners and there will then be much less need of my repeating the same thing in one way or another till, as I have no doubt, many of your readers at the present time think me a crank on this subject. Well, my only excuse is a plea for the poor plants and a love of one of nature's grandest if not the finest of all flowers, the beautiful rose.

JOHN N. MAY.

Notes on New Roses.

BY A. E. WHITTELL.

At present there does not appear to be anything like unanimity of sentiment concerning the new roses—extensively grown this winter—Souvenir de Wootton, Duchess of Albany and Mme. Hoste. Hardly one of the retailers spoken to have much to say in favor of the Duchess. A general preference for La France, because of its brighter appearance. The Duchess was seen in November growing at three or four places, but in no case was the rose in good condition; flowers smaller than La France, the growth weak, any quantity of black spot upon it. One retailer prefers the rose because its color does not fade after it is cut, like La France.

Souvenir de Wootton has disappointed both grower and retailer so far this fall. Mr. Robt. Craig has a large number planted out on benches in his greenhouses, but not a flower could be seen that was the equal of a Bennett. Color anything but remarkable. Yet Mr. Evans of Philadelphia, stated that some buds of this variety were sold in his store the previous winter for Beauties, neither the buyer nor the salesman being aware of the difference. It is claimed for this rose that it is free from black spot, but the proof is not according to the statement, for in every place where it was seen growing the disease was present.

Neither was Mme. Hoste seen in good form. This rose, so far with us, has been entirely free from black spot or mildew. The blossoms produced are very unequal. Some no larger than a poor Perle, others on the contrary, as large as well grown Nels—also having the advantage of long, stiff stems and luxuriant foliage. If this rose is wanted in its best form, quantity of bloom should not be sought for. The small buds should be picked off and only those on the strong shoots allowed to remain. It is a free grower and from present appearances is a rose that will prove an acquisition to the limited number of good roses for winter blooming.

It takes, however, two or three seasons



CHRYSANthemUM MRS. BENJ. HARRISON.

before all the good or bad qualities of a rose are discovered. If we find that good flowers are produced by one man, others will soon find a way to have them likewise. But it is certainly a question to puzzle some of us, why so many Woottons and Hostes should present such a miserable appearance when, according to past recommendations, these roses should begin to show beauty and size. Evidently ample opportunity for experiment. Albany, N. Y.

[In response to a query Mr. Craig writes: "The Woottons have been rather disappointing all through the fall, but I am satisfied they will be good the latter part of this month (December) and for the balance of the winter. They are already making much better bloom than a month ago."

The rose was certainly fine as grown by Messrs. C. Strauss & Co. at Washington, during January, February and March last, and the photo-process engraving published in last issue would indicate that it is still doing exceedingly well there. The Wootton is not a good fall rose, but is best in winter and spring. It will bring only the price of a Perle in fall, but in winter twice as much, and is therefore on the whole a more profitable rose than the Perle, at least this is the experience of several large growers.

We have seen some grand blooms of Duchess of Albany and have heard retail flower buyers express a decided preference for them over La France. It is only through information from a variety of sources that we can even approximately determine the value of any rose, but from

what we have seen and heard of both these roses we are very favorably impressed with their value. They may prove to be of no value whatever in some localities, but we should be loth to discard either of these without a most thorough trial, for that they are doing exceedingly well in some places is conclusively proven.—Ed.]

Quassia for Rosebugs.

During this summer and fall I found my roses, and especially the Perles, were being quite badly injured by the rosebug. After trying hand picking for a time I thought I would try what effect a decoction of quassia chips would have upon them. Some time in October I prepared some quassia tea, by putting two or three handfuls of quassia chips in a pail of hot water, letting it stand until morning, then giving the plants a thorough wetting with a syringe. I have examined the plants several times and do not find a bug upon them. Not knowing much about their habits I cannot say what has become of them, they may have hid themselves away for the winter, and in the spring appear in larger and stronger forces. Those who have had experience with them can tell if they are daily workers the year round, or if they appear for only a part of the year, disappear for a time, and then come again when their season arrives. This much I do know, I gave the plants a good syringing with the quassia decoction and the rosebugs have disappeared. If the quassia killed them it is of much value to florists growing roses, and I hope others who are suf-

fering from the ravages of the rosebug will try the remedy and report in the FLORIST their experience. No patent applied for.

Hudson, N. Y.

E. HOLLEV.

ROSE "THE RAINBOW."—Mr. John H. Sievers, San Francisco, Cal., sends us a few specimen blooms of his new rose "The Rainbow." As will be readily imagined the blooms were not in very good condition after a shipment by mail from the Pacific coast, but the marking upon the petals as described could be seen and a strong Gontier fragrance was perceptible.

BEST SIX ROSES.—Will some one please name the best six cut flower roses for a beginner?
W. C.

Chrysanthemum Mrs. Benj. Harrison.

The chrysanthemum represented in the cut was raised by Mr. Geo. Hollis, of South Weymouth, Mass. It was awarded a first class certificate of merit by the Mass. Hort. Society in 1888, and blooms of it were shown at this year's exhibition measuring $7\frac{1}{2}$ inches in diameter. It is thus described: "Pearl white, the inner petals slightly flushed with straw color. Petals broad, outer ones reflexed, gradually incurving to the center, making a broad high flower of great substance."

The "Spider Lily."

I notice in the last number of the FLORIST an inquiry from Chas. H. Mayer, of Waco, Texas, regarding the so-called "Spider Lily." From his description he undoubtedly means the *Pancratium rotatum*, which grows abundantly in the mountains of Tennessee and is locally known by a variety of names. I first heard of it under the name of "Spirit Lily," and certainly its delicate texture would warrant the name. The cup is pure white and from it sprays tapelike petals, which has also given it the name of "Tape Lily." In another locality it is called "Railroad lily," from the fact of its being found abundantly along the cross ties in mountainous regions. At this same place it is also dubbed by the natives "Crow pizen," and there is still another name. In General Andrew Jackson's beautiful garden at the Hermitage, where hyacinths, tulips, peonies, lily of the valley, white lilies and other bulbs and shrubs bloom abundantly, it is most luxuriant and is called by Col. Jackson, who now lives there and who had the name from General Jackson's time, the "August Lily." Its favorite blooming time is August and coming when there are few other lilies is especially desirable.

Your correspondent's mistake is in moving his bulb too often. It is perfectly hardy in this climate or in his and should be left in one spot to spread out its roots deep into the earth. It will then flower abundantly. G. W. CURREY & CO., Nashville, Tenn.

—The "Spider Lily" enquired about by C. H. Mayer, of Waco, is the *Pancratium caribaeum*. It flowers well with us here. HAGGAR & DAVIS.

Marshall, Texas.

—In answer to C. H. M., there is a plant known all through our part of the country as "Spider Lily." *Pancratium rotatum* the botanist calls it. It is a large white bulb, not unlike an onion in shape, throws up the leaves as he describes and in latter part of July or early in August sends up flower stems 12 to 18 inches long full of buds. The flowers are white and very sweet. Our section is full of it. One natural bed not a mile from

me is 40 yards square and thickly set with it. In August the fragrance is noticeable one fourth mile away and if you go to it you can hardly breathe for the sweet strong odor given off. Mr. Mayer has no doubt one large bulb with five to twenty smaller ones. If he will remove it, give leaf mould and cow manure, keep partly shaded and rather moist he will have bloom and fragrance. It is worthy more attention than it gets.

Cloverport, Ky.

FLORIST.

—This is very likely a provincial name given to *Pancratium maritimum*, the sea daffodil of the sandy coast of the Mediterranean. Its flowers are pure white and delightfully fragrant, and the petals are extended in five long thin strips resembling the legs of a spider. It is an evergreen bulb and does best with bench treatment. It blooms with us twice a year, namely in May and December. We do not find that resting is of any benefit to it.

J. A. BALMER.

Vincennes, Ind.

—The "Spider Lily" of C. H. Mayer is probably a *pancratium*. The various species are called "Spider Lily" all through the south. If the soil does not freeze too deep and too long at a time it would be better not to disturb it. A mulch in cold weather would help.

Switzerland, Fla.

W. C. STEELE.

THE NEW TRADE DIRECTORY will be ready by the 10th inst and orders should be sent in at once. The price of the new book is \$2, and it is worth many times that price to any one who desires an accurate list of those in the trade in the United States and Canada.



Orchids as Cut Flowers.

Two years ago I predicted a future for the orchid flowers which would astonish the most sanguine anti-orchidist, and that prediction I find rapidly being fulfilled. In every floral "event" we find the orchid plays its part, not to the detriment of other flowers, but as a great auxiliary to their success. And I feel free to say that in some cases many visitors are enticed to Floral Hall chiefly to see the "orchid flower," as it would not sound well in this enlightened era "not to have seen an orchid." I am often asked how my orchids pay. This would be a pretty knotty question to unravel in many branches of floriculture, as so much depends upon fluctuation of prices occasioned by the ever regulating process of supply and demand, the difference in having success in cultivation and other contingencies incident to every branch of same. For instance, one may have a splendid lot of young palms clean and healthy on September 1, but by December 1 they may be all covered with spot or rust, of course this is produced through neglect and want of proper care, so palms can not pay in this way. The same thing will happen perhaps with roses, violets or carnations, all this is not the fault of the plants, but of the man that handles them. In our perigrinations through the different horticultural establishments throughout the country this unfortunate spectacle is often met with in orchids as other plants, and it is my candid advice to let alone all plants of every description

that is any way foreign to your acquaintance unless you resolutely make up your mind to succeed.

The culture of the orchid does not require anything like the vigilance to handle as do many of our more common things, such as the chrysanthemum, rose, violet, etc. Many of the most beautiful types of orchids will simply grow under the most trying and adverse conditions. For instance, last summer I hung in my carnation house from March 1 till September a row of *L. anceps* close under unshaded glass, the thermometer ranging from 80 to 120. In the evening they were copiously watered, and often in the morning at 5 o'clock they would receive a like drenching. They are to-day full of blooming spikes and will soon be in bloom. *Cypripedium insigne* I had in a frame unshaded outdoors with sun pouring on them till 11 to 12 a. m., in September they looked a little light in color, but to-day they are a beautiful dark green, strong leaves, thick in texture and showing an extraordinary crop of flowers. They have had nothing by way of stimulant, for the reason I think that stimulating the orchid with manure water may produce large thrifty growth, often at the expense of both the plant and flower. I think fairly liberal culture is much safer than high-pressure methods for orchids in general. Strong sturdy growth is much better than hasty growth and large sappy bulbs that will rot, and bluish in two or three nights of fall weather without artificial heat.

Referring to the question do they pay, I emphatically say yes, if properly handled and enough of the right kinds grown to be able at all times in their season to supply orders as they come in. Now regarding the kinds that will pay I should not recommend varieties that are not admired by people of judgment and good taste. Neither should I recommend the varieties which take up large and valuable space, large pots, etc. I mean such plants as *Phaius grandiflora*, *Sobralia macrantha*, *Zygopetalum Mackayi*, *Z. crinitum*, *cymbidiums*, *peristerias*, some of the *lycaests* such as *Deppi*, *gigantea*, *plana*, *thuias*, *cypripediums*, *stanhopeas*, etc. The flowers of this lot, although well enough in their place, can not be grown profitably, and if I grew only such as these I should have to keep them myself, as I can not sell them to ladies of taste, and if I send them to florists they send me invariably a reminder in their next order not to put in any of "those darn'd stiff looking things, as they are neither graceful nor beautiful. Send me all the *odontoglossums*, *phalenopsis*, *cattleyas*, *dendrobiums*, *serides* and *lucy cypripediums* you can." Then just look at the space a large pot of *zygopetalum* or *cymbidium* will take up—say a 12-inch pot or pan—and each pot will not produce more than about three spikes of twelve flowers each, value \$3, when in the same space can be grown at least six pots of *odontoglossums* that will produce six spikes of flowers at \$1.25 to \$2 each, or on the six spikes you can depend upon getting \$7.50. Plants much easier to handle, eminently beautiful and profitable.

While I have thus far intruded upon your valuable space perhaps you will endure a still further infliction, which I will make in giving a brief note on the culture of the leading varieties, commencing with the *cattleya*. Look out for scale, keep sufficient moisture in house when firing hard, increase the light by cleaning glass, give ventilation through bottom ventilators every day (without draught on the plants), do not water the plants till dry and then on fine sunny days water

through pots thoroughly. Place all plants that are finishing their growth in a light position; look out for snails; meal put around the house is an excellent trap and will soon rid the house; a few pots with dry sphagnum laid on their sides between the other pots will soon catch all the wood lice that feed on the roots of the *cattleya*.

Dendrobium Wardianum and *nobile* when ripening off stop watering as soon as bulb is plump, hang in cool, dry atmosphere with plenty of light, and as soon as you find the buds protruding the 16th of an inch put into stove heat with 65° to 75°, plenty of atmospheric moisture, and in about twenty days they will be finely in bloom.

Look carefully over *Odontoglossum Pescatorei* and fall blooming *O. crispum* and as you discover the buds at base of the newly finished bulbs give the plants a little elevation and extra light, water rather more sparingly and you will save many beautiful spikes that if left alone would become food for small snails, etc. After flowering give the plants the coldest place you have in your cold house, 40° till spring comes, when they will begin to push growth again. Water sparingly when resting, but never allow them to become "killing dry." *O. grande* should now have a long rest at 50° till signs of growth commences, when they will require a little mending up or perhaps a repotting. Insley will take same treatment.

Lycaeste Skinneri that are finishing their growth will be better removed from cold house to intermediate, 55° to 65°, they will finish their bulbs better and produce finer flowers and come into use in the holiday season. After growth is finished they may be kept dryer and cooler.

Laelias should be given plenty of light and when out of bloom they may be removed to a cooler house till the flowers are used, rest them in some cool house till season of growth commences, which is late in spring. During this resting period do not water more than enough to keep from shrivelling.

O. Bowringiana are now finishing bulbs and should have 55° to 65° till the bulbs are fully formed and ripe. Rest in cooler house, keeping drier than for *O. crispum* or *Pescatorei*. Same rule will apply to all this tribe of *odontoglossums* such as *vexillarium*, *hastatum*, *citrosimum*, etc.

Cypripediums are growing fast and will require water constantly, in fact they never seem to be at rest. I think though that in large specimens it is well to give a few weeks rest after flowering, as I believe the plant will make better progress than if kept continually watered.

My experience teaches me that the greatest art in orchid culture is to know when to rest them. They will show you when they are anxious to grow. Many of them will stand resting in a cool dry house, viz.: *Dendrobium nobile*, *Wardianum*, *thrysiiforme*, etc., *Laelia autumnalis*, *L. albidia*, *L. anceps*, *Cymbidium eburneum*, *Cym. Lowi*, *C. Mastersi*, *Zygopetalum Mackayi*, *Z. crinitum*, *cypripediums*, etc., but the same plants when growing will take strong moist heat, 75° to 90° when growing, and during that period should be watered freely at least two or three times daily, at the same time giving plenty of ventilation top and bottom.

About the profit in orchids I will say that I consider *laelias*, *cattleyas*, *odontoglossums*, some of the *dendrobies*, *cypripediums* and *oncidiums* such as *varicosum*, *tigrinum*, *crispum*, *Cavendishianum* and some others as profitable as any plant grown provided that they are suc-

cessfully treated, and enough grown to have enough flowers at any time in their season to supply a basket of flowers or a box of cut flowers as the case may demand. And I firmly believe that every florist will find the need of a collection suitable to the amount of trade he does; this need will be brought about by the advancement of taste, which now almost seems inborn in the masses.

Utica, N. Y.

WM. MATTHEWS.

OBITUARY.

JOHN HENDERSON—After a long and painful illness John Henderson passed away on Tuesday, December 17, the immediate cause of death being heart failure. With him horticulture loses one of its noblest representatives, loved and honored by all who enjoyed the privilege of his friendship as a Christian and a gentleman.

Mr. Henderson was born in London, England, December 5, 1818, where he received a classical education, taking a prize in Greek scholarship at the age of 15. He came to America in 1836, and settled in Flushing, L. I., which continued to be his home until 1888. He soon became an authority in horticulture, making a specialty of roses, and is also author of a standard work on grasses. He delivered the first horticultural lecture ever given in the Cooper Institute, for which he received a silver medal. He was a life member of the New York Horticultural Society and the American Institute, constantly officiating as judge at the exhibitions of both bodies, and was also prominent in the Society of American Florists and Nurserymen's Association. He retired from active business last year, taking a long trip to the Pacific Coast for the benefit of his health, which was far from robust at the time. On his return he moved to Brooklyn, where he resided until his death.

During his long residence in Flushing Mr. Henderson was identified with all public and philanthropic work. The Flushing Hospital, close to his nursery, is a monument to his benevolence, he having largely endowed it, and given the land on which it stands. He was president of the electric railway and vice-president of the Flushing Savings Bank.

Mr. Henderson was an accomplished linguist, speaking four modern languages with fluency, apart from his acquaintance with the classics. He made frequent trips abroad, both to the Continent and to his home country, for which he always felt a warm regard.

Mr. Henderson was naturally a prominent figure at all horticultural gatherings in and around New York. His slight figure and calm benevolent face, framed in silvery hair, was always greeted with affectionate good will, and his suave dignity of manner and unvarying courtesy gained him the respect and regard of all who met him. He was a perfect gentleman of the old school, genial, upright and brave with the courage of his convictions. He leaves a widow and two daughters. The funeral took place on December 20, at the Church of the Good Shepherd, Brooklyn.

—Mr. John Henderson died at his residence in Brooklyn on Tuesday, the 17th inst., at the ripe age of 72. He was born in London, England, and came to this country some 33 years ago with a few hundred dollars in his pocket, the remnant of a large fortune lost in a disastrous business enterprise. He came to Jersey City and began business in a small way in forcing the finer kinds of vegetables for

the New York market, a business of which he knew nothing, but his energy and strong common sense soon enabled him to equal and surpass most of his contemporaries. He gradually drifted from this business to that of florist where he was more at home, for his early training in his father's firm of E. G. Henderson & Sons, Wellington Road, London, had made him an adept in all florist operations, so that by the time he had been in business five years he became noted as growing the best plants and flowers sent into the city of New York. Probably no man ever lived who saw quicker the way to develop the best qualities of plants than our old friend. He not only originated many varieties and developed the merits of others, but many valuable methods of culture were evolved from his close observation and fertile brain from which hundreds of your readers are now reaping the benefit without knowing to whom they were first indebted for such knowledge.

Although like most business men, he had reverses, yet he successfully weathered them all, and two years ago, having amassed a fortune, he sold out his immense rose growing establishment in Flushing, N. Y., to his manager, Mr. Chas. Anderson. He had reason to look forward to some years of leisure after his long period of hard work, as he came from an unusually long-lived race, but "Man proposes and God disposes," and he went (as most of us thought) before his time, over to "the great majority."

As a man, no one stood higher, or gave a greater dignity to our profession than John Henderson. He combined the educated, polished gentleman with the strong practical sense of a business man. Modest and unassuming to a fault, there are few men whose memory will be longer revered than that of our friend, who has just passed away.

December 21, 1889.

Washington.

Of late a decided innovation and effective novelty has been introduced in the line of table floral decoration at some of the larger dinners given in honor of the members of the International Maritime Congress and the Three Americas Conference.

Among these the table set recently at the "Arlington" was pre-eminently a success. All set pieces were dispensed with. The table was unique in form and the arrangement was certainly highly pleasing. Seventy guests were provided for. The space allotted to each guest was ample. The linen, plate, China and glass were of the finest and the floral artist capped the climax of effective display without in the least impeding a vision of all parts of the table. A border of about 20 inches of the table covered with white linen was allotted for dishes, viands, fruits, etc. tastefully arranged; then followed an inner border of 12 inches covered with olive colored plush—upon this extending around the whole table but made up in sections—of six to ten feet were flat ivy covered strips 10 inches wide in and upon which were imbedded rose buds in clusters and various other border designs, each section presenting something different, the one being made up of Perles, another of Jacqs and Niphetos, another of La France, etc., not massed designs, but designs rather in groups and garlands, imparting more effect than closely packed buds. The inner court of the table was so sunk and arranged that the crowns of the Maiden-hair and other potted ferns with an

occasional delicate palm, formed a billowy surface on a level with the table top. In this billowy surface liberally, but not too much so, were placed clusters of *American Beauty*, of *La France* and of the new rose, *Duchess of Albany*, loosely arranged in unseen vases so that the crown of the clusters formed as it were charming mounds throughout the extent of the undulating delicate surface of green. Palms of all sizes and of great variety were disposed so as to form a semi-circular tropical background of rare beauty and effectiveness.

A few weeks ago on the occasion of a dinner given by Secretary Blaine at the "Normandie," the table was similarly arranged as to floral decorations; only its form being an ellipse. The space in the center allotted to the florist's art was 38 feet long by 8 feet wide, which required over six hundred potted ferns to fill, but the effect, if anything, was decidedly greater, as no candelabras were used, but in place thereof 150 incandescent and shaded electric lights were introduced beneath the crowns of the ferns, affording ample light, obviating all other means of lighting and producing a mellowness of light throughout the apartment never heretofore attained. In fact one of the distinguished guests remarked that he had been dining now for 35 years in every quarter of the globe, but never had seen a dinner table so effectively arranged. J. H. Small & Sons were the floral artists and designers in both instances. Z.

Chicago.

Passed through the city recently: H. A. Siebrecht, New York; M. A. Hunt, Terre Haute, Ind.; E. G. Hill, Richmond, Ind.; H. A. Bunyard, with Pitcher & Manda, Short Hills, N. J.; E. D. Sturtevant, Bordentown, N. J.; James Currie, Milwaukee.

The Christmas trade was larger than ever before.

The old mistake of holding back stock for the Christmas trade was made by many growers for this market. For two weeks previous to Christmas flowers were very scarce and it was difficult to obtain a fair supply even at high prices. Ten days before Christmas carnations sold as high as \$5 a hundred and a sufficient supply could not be secured at that rate, but on the 23d and 24th great quantities were poured into the market, with the result that many were lost or sold at low prices, for retailers had in many cases ordered from the east, fearing that a supply was not to be had at home, and commission men had refused to accept orders, having every reason to believe that they could not fill them. At the last moment orders, which had the day before been refused, would have been gladly accepted by both retailer and commission man, but it was then too late to let buyers know that their orders could be filled. It seems strange that this same error should be made nearly every year, and that holiday prices should be refused prior to that time.

M. F. Kyle & Son have succeeded Alired Edler at 208 North State street.

Rubber Packing.

I have never used prepared rubber packing, but if T. E. wants a good economical packing for hot water pipes he can utilize his old garden hose by splitting it into quarters and driving the strips into the joints firmly, without cement. If the strips are too thick divide again by splitting the ply. Drive the joint full and you will have a flexible joint that will not go back on you. W. W. S.

The Ginkgo Tree.

The Ginkgo or Maidenhair tree (*Ginkgo biloba* or *Salisburia adiantifolia*) is a beautiful ornamental tree for the garden or street, an admirable avenue tree and of the most distinct and striking appearance. It is perfectly hardy around New York, hardy too at Boston, and luxuriates towards the south. It is a clean and thrifty grower, not over-particular as to soil, insect-vermin proof so far as I have seen, readily propagated and may be transplanted with the greatest success.

It is a supposed native of Northern China, but it has been found wild nowhere on earth. It is extensively planted about temples and palaces in China, and has been cultivated in Japan from time immemorial. The Chinese name for it is Ginkgo, and the Japanese name *Itcho*.

Although much unlike coniferous plants in general contour, it nevertheless belongs to the Yew tribe of the coniferous family. In China it attains a height of 75 to 100 feet, but in this country our largest plants are only about 50 feet high. It is a deciduous tree with broad fan-shaped leaves notched at the end, and not unlike a leaflet of Maidenhair fern, hence the common name. The flowers are small, inconspicuous and green, and the pistillate and staminate ones are produced on different trees. The fruit is an ovate plum-like drupe nearly an inch in diameter and containing a kernel like a small filbert; the color is yellowish green and the flesh juicy, sweet, pucky and malodorous, indeed, a combination not unlike green gage, alum and assafetida.

The first tree planted in this country is still growing in Woodlands cemetery, and is a fine specimen and one of the arboreal treasures of Philadelphia. But it is a male tree, hence has never fruited. Of recent years, however, a good many female trees have fruited especially around Philadelphia. In the Philadelphia *Ledger* a few weeks ago, apropos of the fruiting of the Ginkgo in Mr. C. J. Wister's garden at Germantown, a lengthy and excellent article appeared descriptive of the history of the tree. Mr. Wister informs me that this tree is 45 years old, 40 feet high, 30 feet in spread of branches and 6 feet in circumference of trunk near the ground, and that it has fruited abundantly for the past three years. Mr. Joseph Meacham tells me that five years ago D. Landreth & Son exhibited fruit from a tree on their grounds at Bristol, Pa., and regarding a tree on the grounds of Mr. B. H. Shoemaker, of Germantown, he writes: "I saw a branch about 4 feet long with 46 fruit on it this fall." Mr. S. has two Ginkgos in his garden, a male and female. They were planted in 1866, and are now about 50 feet high with a stem 12 inches through, also—"I thought the land three years ago, at which time, since then, and this year the limbs are crowded with fruit." Mr. S. Parsons, superintendent of the New York parks, writes me: "The Ginkgo biloba in the park (Central) near the lake, * * * has fruited abundantly for the past three years, and so far as I can learn for several previously. It is from 40 to 50 feet high and from 15 to 17 inches in diameter of stem."

The *Ledger* says: "The Ginkgo, of all other trees, is able to resist carbonic acid, sulphuric acid, or any other gaseous element that may permeate the atmosphere of cities, and which renders the health of the modern trees so precarious. The Ginkgo tree is, in fact, found to be an absolutely smoke-resisting tree." Regarding Mr. Wm. Hamilton, superintendent of Public Parks, Allegheny, Pa., (until a few years ago when natural gas dis-

placed soft coal, one of the smokiest cities in the country), writes me: "The Ginkgo has always done well here. The best recommendation that I can give it is, that it thrives as well in a smoky atmosphere as the *Ailantus*."

According to Mr. Andrew S. Fuller it is "propagated by seeds imported from Oriental countries, by layers and cuttings of the young shoots taken off with a heel in midsummer, or of the ripened twigs in autumn, and planted in frames in a greenhouse. * * * or varieties by grafting in the open air early in spring, or under glass in August."

Some florists, especially those who do a mail trade, sell a large number of Ginkgo trees every year. They usually buy one year old seedlings in France; these are quite small and of handy mailing size, but there is no reason whatever why they shouldn't raise their own plants and keep the money at home which they send to Europe.

There are several forms of the Ginkgo, for instance, large leaved, small leaved, deeply notched leaved, and variegated leaved. But the variegation is not present all over the tree, it merely occurs in a bud or twig here and there. And we have pyramidal and spreading forms. But, really, the varieties are nothing more marked than you can pick up in a bed of seedlings any day.

WM. FALCONER.

SPRINGFIELD, MASS.—The Gale Floral Co. has opened a store at 331 Main St.

SEATTLE, WASH.—C. Hoffmeyer, for ten years with J. R. & A. Murdoch, of Pittsburg, and later with the Soldiers' Orphans' Home at Uniontown, Pa., has started into business in this city.

BELLEVUE, PA.—The greenhouses which were burned December 1 were owned by James Crawford and operated by John Lutz. They were not the houses owned by Fred Burki as announced in last issue.

SITUATIONS, WANTS, FOR SALE.

Advertisements under this head will be inserted at the rate of 10 cents a line (seven words) each insertion. Cash must accompany order. Plant ads. not admitted under this head.

SITUATION WANTED.—With seed or florists' supply house. Salary or commission.

A. RINGIER, care American Florist, Chicago.

SITUATION WANTED.—By a young man to make up, store or greenhouse, 8 years experience to Boston. Address FLORIST, care F. A. Hogan, 222 Fayette St., 17th Mass.

SITUATION WANTED.—As manager or foreman to a large commercial or private place, 15 years experience in the best known nurseries of England, Belgium, Germany and America. Thorough knowledge of all branches, would like to go on half shares. F. care American Florist.

WANTED.—An industrious young florist for general greenhouse work. Address H. KADEN, Gainesville, Texas.

WANTED.—Commercial florist; single man. For full particulars, address R. SCHAFER, 116 Denham Street, Cincinnati, Ohio.

WANTED.—Landscape and vegetable gardener; strong, industrious, sober and sensible man. Address E. T. NOEL, Nashville, Tenn.

WANTED.—A florist that understands the propagation of roses, one that is willing to work and make himself useful can get a good situation. Will pay wages or give me half interest in the business. Address H. G. CARTER, Shreveport, La.

WANTED.—A partner; must have commercial and practical experience in propagation. First-class facilities and good trade, can be indefinitely increased. Must take some money interest to insure reliability. 12,000 feet of glass, 2 acres ground, steam complete. Address CARNELL, care American Florist, Chicago.

WANTED TO RENT.—Not less than 100 running feet of glass, and not less than 1 acre of land adjoining, within 20 miles of New York City—a fashionably populated neighborhood—preferred or would manage a good commercial business if could come to terms with parties for the introduction of a lovely class of plants destined to have a great future in advertising possessing the most magnificent stock in America, without exception, and is an expert in the growing of same. Stock sufficient to grow 100,000, is also an expert in the growing of greenhouse

grapes, chrysanthemums, tomatoes and mushrooms to winter. This is genuine. Address Box No. 1, Scarisford, Westchester Co., N. Y.

FOR SALE.—A \$5,000 business on easy terms. For particulars, address X, care American Florist.

FOR SALE.—In a prospering New England town, a commercial greenhouse with large dwelling and outbuildings, all new. For particulars address C. EVERDING, Bradford, Conn.

FOR SALE.—A valuable property in a thriving town in Western New York, 200 feet of glass, well stocked with roses and carnations, and all plants, excellent shipping facilities. Particulars and reasons for selling by addressing S, care American Florist.

FOR SALE.—If I can sell in the next fifteen days, I will for sale a new, paying business, three greenhouses 12x30, water heating, fine stock of plants and the hydrant, dwelling house with four rooms, stable, hot acre lot, 50x175, one-half lease. No competition. Can give possession at once. Will run it if desired for two months yet. For particulars, apply to M. J. NAGEL, Jefferson City, Mo.

FOR SALE.—A well appointed wholesale florist, a total gross annual sale of \$20,000, all covered with glass, in a lively suburb of New York City. All cut flowers are sold on the premises to truckmen, and orders are filled and delivered. Excellent reasons given for selling. Price, \$30,000, one-third cash, balance on bond and mortgage. For particulars address

THOS. W. WEATHERED'S SONS, 46 and 48 Marion Street, New York City.

FOR SALE.—An established paying nursery and greenhouse business, one of the best in California, root stock, plants, and all accessories subject to purchase. Close to San Francisco, numerous large houses, heated throughout, complete assortment of salable stock, a splendid chance will pay from the first day. Can be purchased with privilege of trial if desired. Any one in want of a fine established business should investigate at once. The best of reasons given for selling. Address for particulars

EMORY E. SMITH, 321 Market St., San Francisco, Cal.

FOR SALE.—Good established florist business near one of the principal thoroughfares of Cincinnati, well known as the best retail stand in Cincinnati, with dwelling house, 6 greenhouses (5 newly rebuilt), the old frame, hotbeds and all accessories at outbuildings. City hydrant convenient to water the whole place. Greenhouses heated partly with fuel and hot water, 1st floor on Cemetery street, with the lawn, trees and shrubs. From 100 to 15,000 people a day were visiting the cemetery this year. Reason for selling, health. For particulars address C. A. PETERS, Florist, Price Hill, Cincinnati, O.

FOR SALE.

Two private greenhouses, heated by Weathered boiler, 30 feet long, span roof and lean-to, in good repair, 100 plants, 2500 roses, 2500 carnations, rent \$50 per year; centrally located, on good street, this city. Address

11 W W, Box 12, P. O., Providence, R. I.

TO FLORISTS AND GARDENERS.

I am about to erect for Rental on the choicest part of Ninth Avenue, N. Y., opposite Mahanata Square and the Museum of Natural History, a store and greenhouse, to be constructed entirely of iron and glass, and of good design.

It will be supplied with steam heat and electric lights, hot and cold water, and fitted with shelving, racks and all modern conveniences.

This is in the best part of the West Side, and is surrounded by high grade dwellings and a wealthy population.

Plans, terms and full particulars can be had by applying to

C. K. BULL, CITY.

62 Liberty St., NEW YORK CITY.
Or the "EVELYN," 101 West 75th Street.

ROSES.

Good strong young 2-inch pot plants at \$30 per 1000; strictly my selection of Teas, Hybrid Teas, and Noisettes, true to name and good varieties, from last summer's propagation.

Gen'l Jacquemont, at \$3 per 100, \$40 per 1000. GERANIUMS.—Good varieties, my selection, at \$30 per 1000. Single and double, Mme. Sallerio, at \$3 per 100. ROSE GERANIUMS, \$3 per 100.

FERNS.—Adiantum uncinatum, and Adiantum Decurrens, from 2-inch pots, at \$3 per 100 plants.

LATANIA BORBINICA.—5-inch pot plants, at \$4 per dozen; 4-inch pot plants, \$3 per dozen.

AMPELOPSIS VEITCHII.—One year old plants, at \$5 per 100.

PRIMROSES.—Single, 4-in. pot plants, \$8 per 100. Obconica, 4-inch pot plants, \$1.50 per dozen.

FUCHSIAS.—Good varieties, 2-in. pots, \$3 per 100. CYTISUS RACEMOSUS.—2-in. pots, at \$3 per 100 plants.

VINCA VARIEGATA.—2-in. pot plants, \$2.25 per 100. HARRISONII, 2-in. pots, \$3 per 100.

PETUNIAS.—Double, 12 varieties, at \$4 per 100.

GEO. W. MILLER,

1748 N. Halsted St., CHICAGO.

STRONG H. P. ROSES

FROM OPEN GROUND.

ALSO FERN, ENDURED STRONG CALLA LILY, P. CITY.

HERMAN SCHLACHTER, Florist,
WINTON PLACE, OHIO.

CUT FLOWER DEPARTMENT.

WOOTTONS.

OUR 20,000 WOOTTON BUSHES WILL BE IN BLOOM AFTER DECEMBER 10th, AND WE CAN THEN FILL ORDERS FOR THE BUDS OF THIS SUPERB RED ROSE IN ANY QUANTITY.

FIRST SIZE blooms frequently excel in size and color the American Beauty, and equal it in perfume.

SECOND SIZE blooms in every way compare favorably with Bennett.

FIVE ACRES OF GLASS containing 80,000 rose bushes grown exclusively for cut flowers. We cut from 10,000 to 25,000 buds per day during the season from December 15th to May 15th.

VARIETIES:

Wootton, Beauty, Puritan, Hoste, Perle, La France, Watteville, Cusin, Bride, Mermet, Gontier.

We also grow large quantities of bulbous flowers, such as Tulips, Roman and Dutch Hyacinths, Narcissus, Lily of the Valley, etc., etc.

Shipments made by United States or Adams Express, or in special cases by Pullman cars. Canadian, North western, South-western and Southern orders specially solicited.

In telegraphing, much expense may be saved by using the **CODE** which we will send on application.

Telephones 977 and 999. **C. STRAUSS & CO., WASHINGTON, D. C.**

P. S.—Messrs. Strauss & Co. are now ready to make contracts to supply any of the above named Roses in 2½ or 3-inch pots, after April 1st, 1890, at very reasonable rates.

IMPORTED H. P. ROSES.

Worked low on the Manetti Stock, offer the best results to the florist, blooming freely and giving plenty of cuttings for propagating quickly. Fine plants for sale by the 100 or 1000, at low rates.

Price Lists to applicants. Address

WILLIAM H. SPOONER,
JAMAICA PLAIN, (Boston), MASS.

G. BENARD,

ORLEANS, FRANCE.
ROSES ON THEIR OWN ROOTS
A SPECIALTY.

NURSERY STOCK OF ALL DESCRIPTIONS
For particulars apply to

E. BENARD, Jr.,
P. O. Box 1400. SAN DIEGO, CAL.

ROSES.

35,000 of the leading Forcing and Bedding varieties: TEAS, HYBRID TEAS, and HYBRID PERPETUALS. Teas, \$5.00 per 1000; Hybrids, \$15.00 per 1000. My selection of varieties. Also the leading Prize winning varieties of CHIRYANTHEMUS, CARMATION, and general Greenhouse stock.

Trade List mailed on application.

JACOB SCHULZ,
LOUISVILLE, KY.

100,000 ROSES 100,000

We have doubled our facilities for growing Roses of all sizes, and will be glad to price your lists whenever and whatever you may need.

Three acres under glass. Most complete and most select collection in every department. Send for Wholesale and Retail Descriptive Catalogue.

ADDRESS **NANZ & NEUNER,**
LOUISVILLE, KY.

WINTER BLOOMING

AZALEAS

BEAUTIFUL SHAPED PLANTS. ALL SIZES.

GABRIEL MARC & CO.,
Queens Co. WOODRIDGE, L. I., N. Y.

CALIFORNIA'S NEW ROSE "RAINBOW."

The "RAINBOW" is *The coming Cut Flower Rose*, it is not only handsome, but I do state that it will also be one of the paying roses, ranking with *La France* and *Perle des Jardins*.

MY REASONS FOR IT:

FIRST: Its freedom of bloom surpassing *Papa Gontier*, from which it is a sport, having the same erect habit of growth.

SECOND: Color of the flowers. Imagine a *Papa Gontier* of a lovely pink, blotched and streaked with the darkest Gontier color, at the same time only enough to add to its beauty, with base of petals of a rich amber.

THIRD: Have you any pink rose that is as free a grower, as free from disease, does as well as Gontier in a low temperature and produces its flowers on strong and erect stems?

The "RAINBOW" answers the above description, and has been recognized by the highest award at the recent Fall Exhibition of the California State Floral Society.

The judges in a Special Report to the Society stated as follows:

"We, the undersigned, your COMMITTEE on AWARDS of Prizes for the Fall Exhibition of the California State Floral Society, have carefully examined the new rose "RAINBOW" brought out by John H. Sievers of San Francisco, Cal., and exhibited by him, and we find that this new rose is possessed of unusual merit as to color, form, substance, and its variegation—the latter being very distinct—and award to Mr. Sievers, for the same, the highest premium of the Society—a Silver Cup."

Signed,

JOHN GABLER, B. M. PRATT,
WM. GAUGE, CARL KRUGER,
CHS. SCHUMANN.

The "RAINBOW" originated at my nurseries in the Spring of 1888, and will shortly be offered to the Trade.

Visitors from the East should not fail to call and see for themselves.

Any enquiries and communications in regard to the "RAINBOW" should be directed to my address.

JOHN H. SIEVERS, 25 Post Street,
SAN FRANCISCO, CAL.

THE AMERICAN FLORIST

Subscription \$1.00 a year. To Europe, \$1.50.

Advertisements, 10 Cents a Line, Agate;
Inch, \$1.40; Column, \$14.00.
Cash with Order.**No Special Position Guaranteed.**

Discounts, 3 months, 5 per cent; 6 months, 10 per cent; 12 months, 20 per cent.

No reduction made for large space.

The Advertising Department of the AMERICAN FLORIST is for Florists, Seedsmen, and dealers in wares pertaining to those lines ONLY. Please to remember it.

Orders for less than one-half inch space not accepted.

Advertisements for January 15 issue must REACH US by noon, Jan. 9. Address

THE AMERICAN FLORIST CO., Chicago.

NOMENCLATURE.

A very severe criticism on the work—or rather lack of work—of the committee on nomenclature appears in another column. However, something was done, though no material results followed. At the meeting of the committee held in New York city last May, as noted in the FLORIST of June 1, the work was divided and sub-committees appointed to collect data regarding the plants in the divisions assigned them. The understanding was that these sub-committees were to report to the full committee at Buffalo the day before the opening of the annual convention, but that meeting was never held, and no reports were made so far as we can learn.

The work of straightening out the tangle in plant names is not going to be easily done. A committee will accomplish little or nothing without the assistance of every one in the trade; and until this assistance is accorded we need not expect any results, no matter how competent the committee may be. If every florist in the land who knows of a case where a plant is traveling under two names would promptly report the same to the proper committee, that body would have something to work upon, and every case reported would we believe be investigated and the result made known to all.

But many of these cases will not be settled off hand. We have yet to meet the man who can at once positively identify every existing variety of the plants in any of the divisions made by the committee. We have heard it said that there were such well informed men, but we have never met them and have small faith that the meeting will ever occur. We mean of course a positive identification which shall be conclusive, and work of this kind must be absolutely accurate or it is worse than useless. We believe that in many cases synonyms may be positively identified only by growing the two sorts side by side for comparison.

THE NATIONAL CHRYSANTHEMUM SOCIETY.

We understand that several firms have imported the same set of chrysanthemums under number and that each firm will in all probability send them out under names of their own. Here is a source of synonyms that should be attended to at once, and that it is a matter to which the National Chrysanthemum Society should turn its attention all day long.

Every one receiving new plants under number and who is not positive that he has the entire stock should notify the president or secretary of the society, giving the names which he proposes to give them. The names first sent in should have priority and those having the same

set and who applied later should be advised of the names already given and be requested to conform to them. Here is an opportunity to secure uniformity in this matter which should not be neglected.

SOMETHING NEW.—Yes we want it. Something new and something better than what we have got, but we believe that many florists are working in the wrong direction. We refer to those who are unsuccessful with many sorts which their neighbors with more careful cultivation do succeed with. We know growers who have never sent out a really first class flower of any kind from their place, and we believe that it will be useless for such to hunt for some better variety until they have improved their methods of culture. We believe that the wait for some new variety which will produce fine marketable blooms under such adverse conditions as those supplied by some shiftless growers will prove such a long one that it will be exceedingly tiresome.

IMPROVED VARIETIES.—We want improved varieties, and the way to get them is to grow them ourselves, and to do that requires careful patient work toward some definite object. In the mean time it is well to bear in mind that the desideratum is *improved* varieties and seedlings which are plainly no better than or not equal to existing sorts should be promptly consigned to the rubbish heap. This reminder would seem unnecessary, but it is a fact that a large number of the flowers of seedlings sent us for notice are inferior to existing varieties of the same color and form, and some of them are so poor that it is a matter of surprise that the grower should ever have for an instant deemed them worthy of a name.

THE IDEAL CHRYSANTHEMUM.—In our English exchanges we note some well made criticisms upon the tendency to make size the main consideration in a chrysanthemum flower. The London *Garden* aptly asks: "Is size or is beauty the object we should aim at in floriculture?" We want flowers of good size, but the huge monstrosities which have been developed in the last few years, have little to recommend them except size. The thought then occurs; what should the ideal chrysanthemum be? What should be the limit of its size? and what are the requirements for an ideal flower? Is not this a matter for the consideration of the National Chrysanthemum Society?

LATE CHRYSANTHEMUMS.—Mr. Arcnd Brandt, Newport, R. I., sends us some good blooms of chrysanthemums. Some specimens of Christmas Eve were especially good. The majority were, however, badly crushed. Those sending flowers should take note that they very rarely reach us in good condition when packed in light pasteboard boxes, as such are almost sure to be crushed in transit.

Catalogues Received.

California Nursery Co., Niles, Cal., nursery stock; W. C. Jenkinson, Natick, Mass., plants and seeds; Hill & Co., Richmond, Ind., new chrysanthemums; Park Nursery Co., Pasadena, Cal., nursery stock; Henry A. Dreer, Philadelphia, flower and vegetable seeds; Gustave Knoderer, Nice, France, seeds and bulbs; D. Landreth & Son, Philadelphia, seeds; E. D. Sturtevant, Bordentown, N. J., rare water lilies; Ludwig Moller, Erfurt, Germany, horticultural books.

Boston Notes.

Violets scarce.

American Beauties ditto.

There are a few scarlet tulips in the market.

Double pink bouvardia seems to "take" this season.

Southern mistletoe has arrived in good condition generally and sold well.

Holly has been in great demand. It has never sold so well in this market.

The executive committee of the Society of American Florists will meet at the Tremont House on January 15. The Boston boys will be glad to see them.

They ought to have a sleigh-ride on the Brighton Road, but unless the present style of weather changes they had better bring their linen dusters along with them.

The program for the January meeting of the Gardeners' and Florists' Club includes an essay on the education of young gardeners, by Prof. B. M. Watson, Jr., of the Bussey Institute.

The delegation of Boston florists who attended the opening of the new reading room and bowling alley of the New Jersey Social Florists' Club met recently and unanimously voted to put on record their appreciation of the kindness received at the hands of Mr. J. N. May and other members of the New Jersey organization, not forgetting the young men of Mr. May's establishment who labored so zealously to make the occasion the great success which it was. The undersigned has been instructed by the Boston party to extend through the columns of the AMERICAN FLORIST their hearty thanks to their big hearted New Jersey friends.

There is another little "Miss" at David Allan's house. W. J. S.

Forcing the Gladiolus.

If W. F. (page 205 FLORIST) would have gladiolus in bloom early in winter he should plant some bulbs about February 1 in open bench or pots, thus getting them in flower about May 1. Ripen the bulbs off slowly, keep them in a cool dry place during summer and start them again about September 1. This will bring them in bloom near Christmas or during early winter. As W. F. says, bulbs grown outdoors during summer will not ripen in time for early forcing, but if he will follow the above directions I think he will meet with success. The best varieties for forcing are La Candeur, Shakespeare, Eugene Scribe, John Bull, Brencleyensis, Isaac Buchanan and Romulus.

Floral Park, N. Y. C. H. ALLEN.

HUNT & MARKURTH,

Successors to

VAUGHAN'S

CUT FLOWER DEPT.

Will continue the business at 88 STATE STREET until January 10th, after which date you will find us at 79 LAKE ST., where we will be in shape to attend to your orders in the same manner as in the past, which has been characterized by RELIABILITY, PROMPT SERVICE, and FAIR PRICES.

Make a note now, before you forget it, our address on and after January 10th is

79 LAKE STREET, CHICAGO.

We will be at your service six days in the week until 9 P. M. and Sundays till 2 P. M. WE RESPECTFULLY SOLICIT YOUR PATRONAGE.

THOS. YOUNG, JR., WHOLESALE FLORIST

20 West 24th Street,

NEW YORK.

LILY OF THE VALLEY
And the Choicest ROSES for the
fall and winter season.

W. S. ALLEN,

WHOLESALE DEALER IN CUT FLOWERS,

36 EAST 23rd STREET, NEW YORK.

ESTABLISHED 1877.

Price List sent upon application.

IV. F. SHERIDAN,

Wholesale and Commission Dealer in CUT FLOWERS,

No. 50 W. 30TH ST., NEW YORK.

Orders to be shipped will receive prompt attention.

EDWARD C. HORAN,

WHOLESALE FLORIST,

36 WEST 29TH STREET,

The Bride, Mermets,
and Am. Beauties,
SPECIALTIES. NEW YORK

ROSS & MILLANG,

WHOLESALE FLORISTS,

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HAMMOND & HUNTER,

WHOLESALE DEALERS IN

CUT FLOWERS,

51 West 30th St., NEW YORK.

LaRoche & Stahl,

Florists & Commission Merchants

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1237 Chestnut Street, PHILADELPHIA
Consignments Solicited. Special attention paid to
shipping. Mention AMERICAN FLORIST.

CHAS. E. PENNOCK,

WHOLESALE FLORIST

38 So. 16th Street, Philadelphia, Pa.

N. F. MCCARTHY & CO.

WHOLESALE FLORISTS

AND JOBBERS IN FLORISTS' SUPPLIES,

1 Music Hall Place, BOSTON, MASS.

Also entrance from Hamilton Place
through Music Hall.

We keep a large supply of Fancies and Carnations
always on hand. Return telegrams sent
immediately when unable to fill orders.

AUCTION SALES OF PLANTS SPRING AND FALL.

©Wholesale Markets.

Cut Flowers.

BOSTON, Dec. 25.	
Roses, Bon Silene.....	85 00 @ 12 00
" Perle, Sunset.....	15 00 @ 20 00
" Mermets, Brides.....	25 00 @ 30 00
" Gontiers, Niphetos.....	12 00 @ 15 00
" Wootton, La France.....	25 00 @ 35 00
Valley, Tulips.....	6 00
Romans.....	4 00
Carnations.....	5 00 @ 4 00
Harrisil.....	20 00 @ 25 00
Violets.....	2 00 @ 2 50
Stevia.....	1 50
Chrysanthemums.....	6 00 @ 8 00
Callas.....	15 00 @ 10 00
Adiantum.....	1 50
Smilax.....	12 00 @ 15 00
Poinsettias.....	25 00 @ 35 00
Mignonette.....	4 00
Cypripedium.....	20 00

PHILADELPHIA, Dec. 25.	
Roses, Hybrids.....	80 00
" Am. Beauty.....	50 00
" La France.....	25 00 @ 30 00
" Mermets, Brides.....	20 00 @ 25 00
" Hoote, Watteville.....	15 00 @ 20 00
" P. Gontiers.....	20 00 @ 25 00
" Gontiers.....	12 00 @ 15 00
" Bennetts.....	20 00
" Casim.....	15 00
" Perles, Niphetos.....	15 00
Carnations, long.....	3 00
Romans, short.....	12 00
Violets, double.....	1 50 @ 2 50
Violets, single.....	25 @ 25
Cypripedium.....	20 00
Camellias.....	6 00 @ 8 00
Romans.....	4 00
Narcissus, mignonette.....	4 00
Poinsettia.....	12 00 @ 16 00
Poinsettias.....	25 00 @ 35 00
Adiantum.....	1 50

NEW YORK, Dec 25	
Roses, Bon Silene.....	85 00
" Gontiers.....	12 00 @ 15 00
" Perles, Sunsets.....	12 00 @ 15 00
" Niphetos.....	5 00 @ 12 00
" Mermets, Brides.....	20 00 @ 25 00
" Cousins Watteville, Albany.....	25 00
" Bennetts.....	15 00 @ 20 00
" La France.....	20 00 @ 30 00
" Am. Beauties.....	25 00 @ 30 00
Smilax.....	12 00 @ 15 00
Carnations, long.....	5 00 @ 4 00
Mignonette.....	4 00 @ 8 00
Roman hyacinths, Narcissus.....	4 00
Valley.....	8 00
Harrisil lilies.....	25 00
Violets.....	2 00 @ 2 50
Tulips.....	4 00 @ 6 00

CHICAGO, Dec. 28.	
Roses, Perles.....	14 00 @ 15 00
" Niphetos, Gontiers.....	12 00 @ 14 00
" La France, Mermets.....	25 00
" Bon Silene.....	5 00 @ 10 00
" Brides, Bennetts, Duke.....	25 00
" Am. Beauties.....	60 00 @ 75 00
Carnations, short.....	2 00 @ 2 50
Carnations, long.....	5 00
Carnations, Grace Wilder.....	15 00 @ 20 00
Smilax.....	1 00 @ 5 00
Romans, narcissus.....	6 00 @ 8 00
Valley.....	6 00 @ 8 00
Bouvardia.....	2 00
Freessias.....	3 00
Tulips.....	4 00 @ 5 00
Callas.....	20 00 @ 25 00
Poinsettias.....	20 00 @ 35 00
Poinsettias.....	25 00 @ 35 00
Stevia, heliotrope.....	1 50
Adiantum.....	1 50

WM. J. STEWART,

Cut Flowers & Florists' Supplies

—WHOLESALE—

57 BROMFIELD ST., BOSTON, MASS.

GEO. MULLEN,

WHOLESALE FLORIST.

Florists' Supplies Always in Stock.

17 CHAPMAN PLACE,

(Off School St., near Parker House),

BOSTON, MASS.

Orders by Mail, Telegraph, Telephone or Express
promptly filled.

WELCH BROS.,

WHOLESALE FLORISTS,

165 Tremont Street, BOSTON MASS.

We make a specialty of shipping choice Roses and
other Flowers, carefully packed, to all points in
Western and Middle States.

Return Telegram is sent immediately when it
is impossible to fill your order.

CUT FLOWERS AND WIRE WORK AT WHOLESALE.

THE WISCONSIN FLOWER EXCHANGE,

123 Mason Street, MILWAUKEE, WIS.

VAUGHAN'S CUT FLOWER DEPT.

88 State St., - CHICAGO.

Receives Fresh Flowers morning and evening
DAILY.

Send your orders to the above address, where they
will be attended to properly.

REMEMBER.—When any one in Chicago has
Flowers to sell, VAUGHAN has also.

WRITE FOR QUOTATIONS.

KENNICOTT BROS.,

WHOLESALE FLORISTS,

27 Washington Street, CHICAGO.

We always have choice, Fresh Cut Flowers in season.
The best packers in the trade. Orders promptly
shipped. Store open until 3 P. M., Sundays until
2 P. M.

WIRE WORK A SPECIALTY.

Extra designs made to order. Write for price list.

Consignments Solicited. Telephone 469.

CHAS. H. FISK,

Wholesale Florist

AND DEALER IN

FLORISTS' SUPPLIES,

116 Dearborn Street,
CHICAGO,

Store Open Day and Night.

—O—

I keep a full stock of

WIRE DESIGNS

of superior workmanship and at lowest prices. Extra
pieces of any description made to order on short-
est notice. Send for Catalogue.

C. STRAUSS & CO.

Telephones 977 and 999.

WASHINGTON, D. C.

ROSE BUYS IN ANY QUANTITY SHIPPED
ON TELEGRAPHIC ORDERS.

See our Large Advertisement on page 235.

CUT ROSES AT WHOLESALE.

The only establishment in the west growing
Cut Roses exclusively.

CUT, PACKED AND SHIPPED THE SAME DAY.

Only handled once, then by experienced persons.
All packages delivered on trains, thus
enabling parties at a distance to get fresh Cut
Roses.

Orders by Mail or Telegraph promptly at-
tended to.

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1688 Madison Street, CHICAGO, ILL.

JOHN M. HUDSON,

WHOLESALE

Commission Dealer in Cut Flowers,

1225 Market St., ST. LOUIS, MO.

Quick sales and prompt returns guaran-
teed. Consignments solicited.

CUT FLOWERS

The choicest Cut Flowers at lowest market rates
shipped C. O. D. Telephone connection. Use A. F.
Code when ordering by telegraph. For price, etc.
Address.

J. L. DILLON,

BLOOMSBURG, PA.

The Seed Trade.

SEED TRADE ASSOCIATION.

H. W. Johnson, Philadelphia, president; Albert M. McCullough, Cincinnati, secretary and treasurer. The eighth annual meeting at Saratoga Springs, N. Y., June, 1890.

Duty on Bulbs, Etc.

Please state whether a duty is charged on bulbs, corms, tubers and roots. I understand some of these come in free, if so, what articles come under the respective designation? It appears some importers have been charged duty on lily of the valley, callas and arums, probably because some appraisers do not know a potato from a tulip.

This is something that would interest many importers and lead to quite an interesting and instructive discussion as to classification. I for one would like to know if there is a duty on arums. Some say there is, others say not. A. B.

[The Florist has found much difficulty in securing definite information on the above, but there is a special treasury decision on lily of the valley. They have been classified in nearly all ports of entry as plants and are not dutiable. The classification of callas, arums, cannas and other bulbs varies according to the notions of appraisers at different ports. For instance, the U. S. appraiser at Chicago classified cannas as bulbs dutiable at 20 per cent. An appeal was made to the Secretary of the Treasury who sustained the decision. A letter was written to the Government Botanist at Washington who reported the canna to be a plant, thus proving that the department had rendered their decision without reference to their own highest authority, although to be found in the same city. There is little comment needed to prove that the tariff and classification as they exist at present need revision.]

Montreal.

The regular monthly meeting of the Florists' and Gardeners' Club was held December 10, there being about fifty members present.

An interesting paper was read by the veteran florist J. S. Murray, (or as he delights to sign himself "Dinna, ye hear it"), upon business methods. It contained some sterling advice to young florists intermixed with several humorous quotations and witty sayings. Hedwelt strongly on the necessity of being economical, and commended the words of the old song "A penny lay bye for a rainy day" to his brother florists.

A useful paper upon "Ornamental trees," by John Walsh, elicited some useful discussion. The two essayists were accorded the hearty thanks of the meeting.

The committee upon the coming spring show announced that the Polman Mooy gold medal would be awarded to the member making the best general display of bulbs in bloom. The silver medal presented by the General Bulb Co., of Holland, will be awarded for the best display of Dutch hyacinths in pots, and the bronze medal presented by the same firm, would be awarded to the private gardener making the best general display of bulbs.

It was also announced that the prize list would be printed and ready for distribution at the semi-monthly meeting. A vote of thanks was tendered to the S. A. F. for a copy of the report of Buffalo meeting.

The following gentlemen were elected

honorary members of the club: Hon. Col. Rhodes, Provincial Minister of Agriculture; Henry Siebrecht, of New Rochelle, N. Y.; Sir Donald Smith, K. C. M. G. There were also two new members enrolled.

The treasurer announced that the prizes for the chrysanthemum show had all been paid, and that there was a handsome balance in the bank.

Joseph Bennett has opened a handsome flower store on St. Catherine street.

The "Wootton" rose is not giving satisfaction here so far, but the "Beauty" is steadily growing in favor. J. McK.

Rubber Packing.

In reply to the query of T. E. in last issue will state that I have used rubber for packing 4-inch hot water pipes, using two to a joint and they gave the best of satisfaction. I consider it far ahead of other methods of packing as the pipes can be easily taken apart at any time without injury. W. C.

NEW DIRECTORY

* READY *

JANUARY 10th.

ZIRNGIEBEL'S IMPROVED STRAINS

—OF—

White Asters, Giant Market and Fancy Pansies, Perpetual White Stocks, Giant White Candytuft.

Also a limited stock of SCARLET ASTERS (La Brillante), and the blue variety.

Trade packet of any of the above at \$1.00 each. (Our White Aster, of the Multidora class, is an improved Victoria, earlier and twice as profuse.)

DENYS ZIRNGIEBEL,
NEEDHAM, MASS.



TO THE TRADE.

HENRY METTE,
Seed Grower and Merchant,
QUEDLINBURG, GERMANY.

(ESTABLISHED 1871.)

Will be pleased to quote special prices for garden, agricultural and flower seeds sown at his extensive grounds, which cover more than 4,000 acres.

	Per 100
Coleus, Rooted Cuttings.....	\$ 1.00
Geraniums, rooted cuttings.....	1.50
Chrysanthemums, rooted cuttings.....	2.00
Dracena indivisa, 4-inch pots.....	8.00
Mrs. Alpheus Hardy, 2 1/2 inch pots.....	each .25
Mrs. Andrew Carnegie, 2 1/2 inch pots.....	each .25

Write for prices on other cuttings.

W. W. GREEN, SON & SAYLES,
WATERTOWN, N. Y.

WANTED TO EXCHANGE.

500 extra nice SMALL PLANTS for a variety of Cuttings and Small Plants useful in a greenhouse
J. S. WARNER, Medina, Ohio.

To The Horticultural Trades

GREETING.—This is simply to remark that we have cut discounts to Advertising Agents down to a low figure. So if you are placing your order through an agent, you may have to INSIST on his including *The American Garden*, to prevent substitution of a less valuable medium. YOU know well enough that there is NO OTHER WAY so low in cost for the results secured, for reaching the best grade of Horticultural Buyers.

YOU MISSED IT if you did not get your ad. into the January number (now closed) which is to be a great double extra edition, of extra size and numerous illustrations. BUT when you see that number, and reflect that those to come after will be very nearly as good (perhaps better), THEN you will lose no time in forwarding your "copy" for an advertisement.

GARDEN PUBLISHING CO.,
(LIMITED),

10 Spruce Street, New York.



SLUG SHOT KILLS BUGS.

For Cuts to Illustrate Catalogues,
write to Fishkill-on-Hudson, N. Y.

INSECTICIDES AND FUNGICIDES.



SLUG SHOT,

Sold
by the Seedsmen of
America.

Read our New Pamphlet.



HUGHES SOLUBLE FIR TREE OIL.

FLORISTS AND NURSERYMEN SHOULD
NOT BE WITHOUT IT.

Unsurpassed as an insecticide, it kills effectually all parasites and insects which infest plants whether at the roots or on the foliage, without injury to tender plants, such as ferns, etc. If used as directed. Used as a WASH it imparts the gloss and lustre to the foliage which is so desirable on exhibition specimens.

It kills insect life on man, animal, or plant, without injury to the skin, wherever parasites may appear.

E. GRIFFITH HUGHES,
Operative Chemist,
MANCHESTER, ENGLAND.

PRICE: { Put up to 1 gallon tins, \$3.25 } in New York
{ Put up in 1 quart tins, \$1.00 }

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see that each tin shows a white label with red trade
mark, full directions how to use, and the name of

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New York Depot 44 DEY STREET.

The National Tribune

WASHINGTON D. C.

THE FAVORITE FIRSIDE WEEKLY OF THE NATION.

Average Circulation for each issue last
year over 156,000.

It has long been the most popular general
advertising medium with the seed-
men of the country.

Rates, 70 cents per square line, with dis-
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Address THE NATIONAL TRIBUNE,
WASHINGTON, D. C.



TREES ROSES GRAPES

MINA LOBATA.

The beautiful Mexican Climber. Trade pkt. sl. oz. \$1
COSMOS HYBRIDA, lg. fl. white, oz. 75c, lb. \$7.
" " lg. fl. mixed, oz. 65c, lb. \$7.50
STO. KS, lg. fl. Giant Perfection ten weeks, mixed
per oz. 75c, per lb. \$9.00
" " German Dwarf ten weeks, mixed,
per oz. 80c, per lb. \$10.50
" " German Dwarf ten weeks, lovely
blue, per oz. \$1.00, per lb. \$12.50
CANNA, lg. fl. dwarf, Crozy's named, oz. 55c, lb. \$1.50

A trade list. Special rate on large orders of seeds
and bulbs.

MRS. THEODOSIA B. SHEPHERD,
Bulb and Seed Grower, YENTURA, CAL.
Mention American Florist.

PANSY SEED.

CAREFULLY GROWN, SELECTED, MIXED.

1,500 Fresh Seeds, \$1.00.

MRS. EVELYN ARNOLD,
GRAND RAPIDS, MICH.

The Public Want

Their seed fresh
and true.
Would they not be most likely to obtain such by buying
directly from the grower? I can buy seed at half
what it costs me to raise it, but could not sleep sound
should I warrant seed of this class. For the same
reason I make special effort to procure seed stock
directly from their originators. You will find in my
new seed catalogue for 1890 (sent free) the usual
extensive collection (with the prices of some kinds lower
than last season) and the really new vegetables
of good promise. You should be able to get from me,
their introducer, good seed of Cory Corn, Miller Melon,
Hubbard Squash, All seasons and Deep Head Cabbages and
many other valuable vegetables, which I have introduced.

JAMES J. H. GREGORY, Marblehead, Mass.

We offer for Spring planting the largest and most
complete general stock in the United States, of
FRUIT and ORNAMENTAL TREES, SHRUBS,
EVERGREENS, ROSES, PEONIES, HARDY
PLANTS, GRAPE VINES, SMALL FRUITS,
etc., including many Novelties.

ELLWANGER & BARRY,
Mount Hope Nurseries, Rochester, N. Y.
Established 50 years ago; still conducted by the founders.

SEEDS.

My Annual PRICED CATALOGUE is now ready
and mailed free to all applicants. It contains all
the leading and most popular sorts of

VEGETABLE, FARM, AND FLOWER SEEDS,

Besides all the desirable novelties of last season,
and nearly everything else in my line of business.

ALFRED BRIDGEMAN,
37 East 19th Street, NEW YORK CITY.
Mention American Florist

P. A. AUGER & CO.

Successors to B. B. NOURSE & CO.,

Manufacturers of
Garden and Veranda Trellises
and Square Plant Sticks.
WESTBORO, MASS.

Musa Ensete.

I send with this a photograph of a plant of Musa ensete grown on the grounds of Mr. N. L. Zabriskie.

The seed was planted in March 1886, the first year it was wintered in the greenhouse and last winter in a warm cellar, to which place it was again taken when it was lifted October 20 last. The leaves were all cut off except the center which was not unfurled. When photographed the plant measured over fifteen feet in height and some of the leaves were ten feet long. It was planted last summer in a very rich bed with cannas and given liquid manure twice a week. The leaves of this plant have a crimson midrib and it is more vigorous than the plain green form.

MARTIN C. BECK.

Anrona, N. Y.

[The photograph shows a handsome specimen of this banana growing in the center of a bed of cannas.]

J. C. VAUGHAN, CHICAGO.

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JAN. 1: }

Chinese Narcissus, @ \$11.00.

Spirea and Dielytra. \$5.50 per 100.

Lily of Valley Pips and Clumps.

Narcissus, Poeticus, Maximus, Von Sion.

Tuberose Bulbs, Pearl, fine, per M \$12.50

2nd size " 7.50

Tall, same prices.

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Dahlias, Colville Alba and English Forcing.

Dry Roots, per 100, \$10.00. A very fine stock.

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Pampas Plumes, Select, 32 to 36 in., per 100, \$11.00; Medium, 24 to 30 inches, per 100, \$7.50.

Bouquet Green, Fresh, bbl., \$2.00.

NEW SEEDS.

CANNA, New French Hybrids, per oz. 75c.

GLOXINIA, Defiance, new scarlet, pkt. 50c.

CENTAUREA Gymnocarpa, pkt. 25c., oz. 75c.

" Candidissima, 1000 seeds 60c.

DRACENA Indivisa lin. 1000 seeds 75c.

COBEA Scandens, pkt. 15c., oz. 60c.

MOON FLOWER, lb. \$5.00, oz. 50c.

SMILAX, lb. \$12.00, oz. \$1.00.

SALVIA Splendens, pkt. 25c.

CYCLAMEN Persicum, large-flowering, pkt. 25c.

DAHLIA Gracilis, pkt. 15c.

VERBENA, very choice mixed, pkt. 25c., oz. \$3.

" White, Purple, Scarlet, each, pkt. 25c.

" Mammoth, pkt. 25c., oz. \$4.

STOCKS, White, Pink, Crimson, each, pkt. 25c.

LOBELIA Speciosa, pkt. 10c.

" Crystal Palace compacta, pkt. 25c.

PYRETHRUM Golden Feather, pkt. 15c., oz. \$1.

PETUNIA, blotched and striped, pkt. 10c.

" best double fringed, pkt. \$1.

And all other seeds that are in season.

FOR SALE.

Swanley White Violets, large clumps in bud, at \$1.00 per 100. Strong plants of same at \$2.00 per 100.

Several hundred mailing size of Crar, single blue, and Marie Louise, double blue Violets, postpaid, at \$2.50 per 100.

Magnolia grandiflora in 2 & 2½-in. pots from 6 to 7 inches high, at \$5.00 per 100. Also several hundred Sabal Palmetto Palms in 3-in. pots, \$6.00 per 100.

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OF THE

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FOR 1890

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Keeping Down Greenfly.

In the communications you have printed regarding fumigating, etc., I have seen no mention made of what has proved with me the best and cheapest method of keeping down greenfly. Of course it can only be done in this way by those who have hot water pipes under the benches. It is simply to place the tobacco stems on the pipes. I use at the rate of one ton of stems to 10,000 feet of glass, but think less at a time would do as well if the houses were clean of fly to start with. There was a considerable number of them in my houses when the stems were put on but it killed them in two days. After two months trial have yet to see any evil effects. E. H.

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Choice Seedlings raised by the introducer

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Mauds, rose white—Chinese. } Certificate
Peerless, lemon yellow. } at Boston,
Nov. 1888.

AURIOLE, Silvery straw color.
Special Prize at Boston, Nov. 1889.

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Full Descriptive List free on application.

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" " Rooted Cuttings, " 1.00 8.00
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Ampelopsis Veitchii, strong plants, " 8.00

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Trade pkt. the mixed colors, 25c. White pkt. 25c.
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CROWN PRINCE, of the Wheeler type, petals ¾-inch in width.

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Lists on application, with descriptions of the twelve. Orders booked in rotation.

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We shall be pleased to make prices on lists of Chrysanthemums. All the New Prize Winners of this year (1889) in quantity for Jan. delivery.

HILL & CO., Richmond, Ind.

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OUR NEW SEED ANNUAL

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- 10 HENDER'S PETUNIAS, single, superb in size and color.
- 11 GIANT AMERICAN COWSLIP, (Dodecatheon Clevelandi).
- 12 PEACOCK PANSY, (Carter's new Pansy.)

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A SPECIALTY.

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PERFECTLY CLEAN.

Per 100
From pots, special color, \$2.50
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Ampelopsis Veitchii OR Japan Ivy.

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Also have 250 Celoxias at 4 00 per 100

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CALDWELL'S
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SPECIAL. Cuttings will be well rooted, true to name, packed carefully and as light as possible.
Samples sent for 10 cts. in stamps. **SEND FOR COMPLETE LIST.**

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Carnation I am prepared to quote low prices on rooted cuttings
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A full line of fancy colored, long and short stems. I make a specialty of shipping long distances.
A full line of **ROOTED CUTTINGS** of standard varieties, now on hand, at reasonable prices,
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Sample blooms mailed on receipt of 25 cents.

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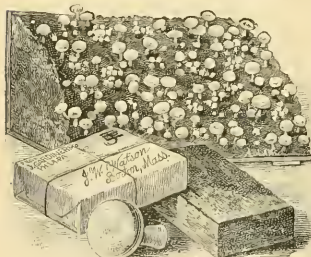
Variegated Musa Ensete.

In reply to our inquiry concerning the variegated M. ensete, Mr. Frank Goeike, of Kalamazoo, Mich., states that he has "raised them from young sprouts." This plain statement is quite unsatisfactory, and if Mr. Goeike can give through the columns of the Florist full information as to how he obtained the "young sprouts" and from what, it would be most gratefully received by all florists who grow the M. ensete. Mr. B. A. Elliott, of the firm of the B. A. Elliott Co., of Pittsburg, stated in a letter to me that the green M. ensete has never thrown off shoots with them, and they are very large growers of this variety of the musa. There is a plant of the M. ensete in a gentleman's conservatory here in our city that is twenty feet high and has one leaf ten feet long, a very fine specimen and it is old enough to throw off sets if it is ever going to. If there is any way to encourage this variety of the musa to stool it would be valuable information to the trade in general. The Musa Cavendish stools very readily and quite frequently comes with more or less variegation, but no comparison to the sample we sent to the Florist. G. R. CLARK.

Scranton, Pa.

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John Gardiner & Co. make a specialty of genuine English Milltrack Spawn. Why waste your money on doubtful quality, when you can buy the genuine English Milltrack at a reasonable price?

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Special value for florists. Trade pkt. 3c. 3 pkts. 5c. V. belva grandiflora, extra large and fine, forets 1-in. in diameter. Mixed colors. Phlox Drum. Imp. Dwi Mammoth, very fine mixed. Lycopodium grand, intense scarlet, very large and free, will bloom in pots for spring trade. Clematis crispa, blue. Tree flowering and fragrant.
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Inspection of my stock at the Nation's beautiful Capital cordially invited.

WRITE FOR PRICE LIST.

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JAPANESE MAPLES,

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Maple Seedlings for Grafting.

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Special attention paid to packing which insures safe carriage to any distance. Full descriptive catalogue sent on receipt of 10c. in stamps—post free to customers.

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ROSES: Papa Goutier, Sunset, Perle des Jardins, Hermosa, Sombrieu, M. Niel, La France, Nipheos, C. Mermel. C. R. du Parc, Washington (Noisette), fine plants from 3-inch pots, \$6.00 per 100; 2-inch pots, \$4.00 per 100.

SMILAX, 2 inch, fine, per 100, \$3 00

ALYSSUM, Double, " 3 00

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NEW BRONZE GERANIUMS, Fire of Tacoma, Bish

Bish, and Annette Courbmann. Send for

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NEW DOUBLE FRINGED PETUNIA, HERMAN MEL-

VILLE, the best of all, ready Jan. 1st. Send

your order now. Order booked and filled in

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ORCHIDS! ORCHIDS!

Many additions of Choice New varieties this season.

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CUT BLOOMS AT ALL SEASONS.

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Send \$ two cent stamps for Catalogue and Plate.

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Ferns, Palms, Orchids.

FERNS FOR FLORISTS' PURPOSES,
BY THE HUNDRED OR THOUSAND.

GEO. WITTBOLD,

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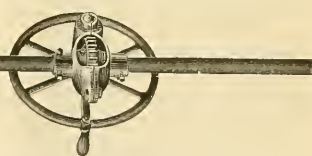
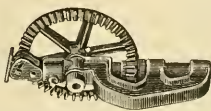
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5 1/2"	" " 6.50	11 "	" " 7.00
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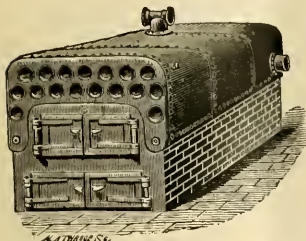
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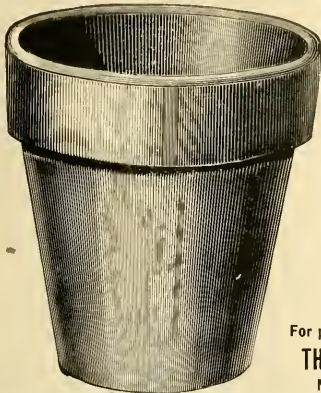
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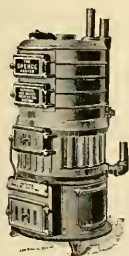
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Index to Advertisers.

Advertising Rates etc.	236
Aldine Printing Wks.	246
Allen S. L. & Co.	245
Allen, W. S.	247
Arnold Mrs. E.	239
Association Florists.	241
Auger P. A. & Co.	239
Bayreuther M. & Co.	246
Bench & Co.	241
Benard G.	235
Berger, H. H. & Co.	244
Bill C. K.	234
Blackely Printing Co.	246
Blanc A.	240
Braque I. B.	241
Brackenridge & Co.	244
Brauer & Richter	243
Brigdenman Alfred.	239
Brown R. & Son.	243
Burrow J. G.	242
Caldwell Geo. W.	243
Carmody J. D.	243
Chemmond Wm. & Co.	242
DeVeer J. A.	241
Devine, Peter.	247
Dies, John L. & Co.	247
Dillon, J. L.	247
Dreer, H. A.	241
Ellwanger & Barry.	239
Ferry D. M. & Co.	238
Fisher Bros. & Co.	240
Fisk Chas. H.	237
Fulweiler F. C.	247
Garden Puh Co.	248
Gardner Jno. & Co.	242
Garfield Park Rose Co.	237
Greene W. W. Son & Sayles.	238
Gregory James J. H.	238
Grithm, Jas.	240
Grithm, N. S.	241
Hales, H. W.	242
Hallock, V. H. & Son.	241
Hammond, Benj.	239
Hammond & Hunter.	237
Hartland W. B.	241
Herendeen Mfg. Co.	248
Herr, Albert M.	243
Hilbner Bros.	243
Hill & Co.	242
Hippard E.	243
Hitchings & Co.	248
Hollis George.	242
Hooker, H. M.	246
Horan, Edw. C.	237
Howard Arthur B.	242
Hoyt R. D.	244
Hudson John M.	237
Hunt & Markuth.	236
Hutches P. G.	239
Ives, J. H.	246
Jewett Z. K.	246
Johnson & Stokes.	240
Jordan J. M.	243
Kennelott Bros.	241
King Jas.	241
Kramer F. N. & Son.	241
Krick, W. C.	246
Krombach Charles.	245
Langwith J. H.	240
La Roche & Stahl.	237

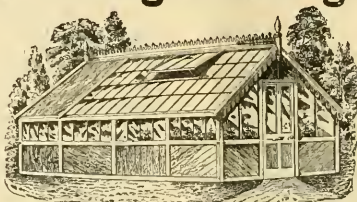
Lockland Lumber Co.	246
Long George.	246
Low Hugh & Co.	244
McCarthy N. F. & Co.	237
McFarland J. Horace.	240
Marc Gabriel & Co.	235
Mathews, Wm.	244
Meech F. J. & Son.	243
Meehan Thos. & Son.	243
Merrick, A. T.	240
Metz Henry.	238
Michel Plant & Seed Co.	242
Miller Geo. W.	244
Mullen Geo.	237
Nanz & Neuner.	235
National Hot Water Heater Co.	247
Pierce Butler & P.	242
Pennock Chas. E.	237
Phelps H. L.	242
Pierce Josephus.	247
Pike Co. Nurseries.	245
Pitcher & Manda.	243
Quaker City Mch. Wks.	246
Reed & Keller.	246
Renard Jos.	243
Riechers F. A. & Sobne.	241
Roller A. & Sons.	241
Ross & Millard.	237
Rupp John F.	241
Schiller Herman.	234
Schulz Jacob.	235
Scollay John A.	248
Segers Bros.	241
Schulze W. & Son.	243
Shepherd Mrs. T. B.	239
Sherridan W. F.	237
Siebrecht & Wadley.	241
Sievers John H.	235
Stipe Droppie & Co.	247
Situations, Wants.	234
Smith David.	248
Smith & Smith.	246
Spaulding T. H.	242
Spooner, Wm. H.	243
Starr Chas. T.	243
Steffens N.	246
Stewart, Wm. J.	237
Storrs & Harrison Co.	245
Strauss G. & Co.	235
Studer N.	244
Swayne C.	243
The National Tribune.	239
Thompson Mrs. J. S. R.	241
Truescher M. & Son.	240
Van der Schoot & Son.	241
Vaughan, J. C.	237
Warner J. S.	240
Weathered, Thos. W.	248
Welch Bros.	237
Whitlin Pottery Co.	247
Wilks S. Mfg. Co.	247
Williams H. W. & Son.	247
Wisconsin Flower Ex.	237
Witthold Geo.	244
Wood Bros.	242
Woodruff W. B.	242
Young, Thos. Jr.	237
Zirgengel D.	238

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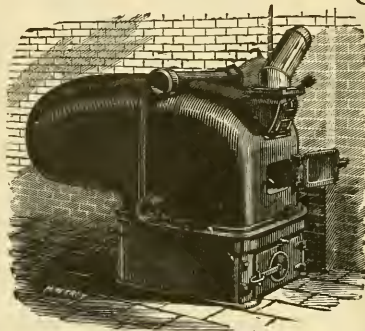
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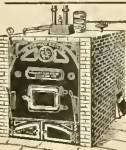
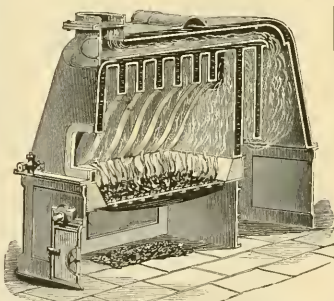
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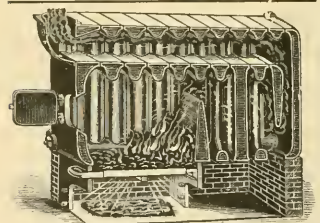
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Vol. V.

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CONTENTS.

The holiday trade	249
Log filled with orchids, roses, etc. (illus.)	251
Decorations at Patriarch's ball, New York	252
Adiantum pubescens (with illustration)	252
Hail notes	252
Long island notes	253
Chrysanthemums—new varieties for 1889	254
Chrysanthemums—late flowering	254
Chrysanthemums—correction	254
Peris serrulata (with illustration)	254
"Landscape"	254
The carnation twitter	255
Carnation Tidal Wave	256
Best six carnations for cut flowers	256
Shoot affected by carnation twitter (illus.) . . .	257
Wintering water lilies	257
Spider lily (with illustration)	257
Rose bushes	257
Rose and Beauty	257
Rose Solitaire	257
Chicago notes and comments	257
Correction	258
Orchids—Odontoglossum grande	258
The unseasonable season	258
Obituary—Charles Ellis Hitchings	258
The cut flower trade	260
The holiday trade	260
Historical	260
The hardy plant trade	260
Catalogues received	260
Tulip growing in Illinois	260
Boston notes	260
Mr. Henderson's bequests	260
Seed trade—import duties	262
Rubber packing	262
Nitrate of soda	262
News notes	262
Mandevilla suaveolens	264
Philadelphia	266
Chicago	268
You can't afford it	270

ONE OF THE FEATURES of the FLORIST has been its punctuality, being until last issue mailed promptly on time. Our issue for January 1 was, however, two days late, and we feel that an explanation is due our readers. The FLORIST was put to press on time as usual and one form was nearly off when all the press feeders in Chicago went out on a strike, and this was the cause of our failure to reach our readers with our usual promptness. It was one of those things that can not be provided against, and had not the company that does the press work for us finally acceded to the demands of the men we should probably have been still later.

THE HOLIDAY TRADE.

New York.

Opinions differ as to the volume of Christmas trade, but it cannot be considered very lively. The crop marketed was certainly smaller than preceding years, especially roses, yet it was enough to supply the demand. A good many growers held back their stuff, as usual, rushing it in at the last moment, to the exasperation of the commission men. There were few really good roses; a large proportion of Mermets, Perles and Cusins were wretchedly colored, in consequence of the lack of sunlight. Few hybrids were in the market.

Prices of roses were as follows: Beauties \$75 to \$150, Gontier \$10-\$15, Perle \$12-\$15, Niphetos \$12-\$15, Souvenir \$12-\$15, Bride \$25, Mermet \$25, Bennett \$20-\$25, La France \$30-\$35, Magna \$60-\$75, Watteville \$20, Cusin \$20.

It will be observed that these prices differ little from the preceding year; if anything they were higher.

Among orchids, cattleyas sold at fair prices, by the box or spray; of cypridiums there were rather too many. They brought from 16 to 20 cents, which is less than last year, but a great many had been held back and a good many were grown.

Cyclamens brought from \$2.50 to \$3 a 100; this flower had to wait some time before its claims were recognized, but the demand now seems quite steady.

Comparatively few tulips were in at Christmas; they were the scarlet Due Van Thol and brought \$4 to \$6 a 100. Lily of the valley was good at \$8 a 100. Roman hyacinths were \$2, \$3 and \$4 a 100, according to quality; a good deal seemed rather weakly.

Very few lilies were in at \$4 a dozen. Poinsettia sold fairly well at 25 cents; violets were \$2 to \$3 100. There is a good demand for violets all the time, though they do not get very high prices, but at New Years so many were rushed in at once that they declined greatly in price, and the market was glutted.

Carnations were \$2, \$3 and \$4 a 100, Grace Wilder bringing the highest price. In a good many cases the carnations have greatly disappointed the growers. Mignonette was good, ranging from \$4 to \$8 a 100, Smilax 15 to 20 cents; asparagus 20 to 35 cents.

Certainly, stuff sold better than was expected, taken throughout the prices averaged a little higher than last year, but this was the result of the small crop. The flowers would have been fine had there been sunlight, but continued rain and fog took away the color, especially in Mermets, Beauties, Wattevilles and other pink roses.

The trade in Christmas greens was not

larger than last year; in some directions there was a falling off. Imported holly and mistletoe sold well; there is an increased demand for the latter. A good deal of the American mistletoe has been marketed and has been sold to the dealers simply because of its cheapness. It sells for \$10 a case when the English variety sells for \$25. The trouble is that this is apt to injure the sale of the finer sort, for many people in this country are unfamiliar with the plant, and when they see the southern variety, with its shrivelled leaves and scanty yellowish berries, they receive a poor impression of mistletoe in general, and are less likely to buy it again. There is likely to be a larger importation next season; it can be shipped very cheaply from the apple districts abroad, and if the price is reduced here the sales are likely to be larger. It seems to have traveled very well this season; last winter a great deal of it lost all the berries in transit. The southern holly was really good, but it lacks the substance of the imported variety, nor is it so well berried.

Just after Christmas the gripe began to show that it would not be ignored, and there is no doubt that this plague had a good deal to do with the dull trade of New Years. Half the florists were down with it, and presumably half their patrons. Prices of flowers took a terrible drop; many were just about one half what they were at Christmas. The day before New Years many dealers declared they were not doing so much as an ordinary day, but there was a slight revival on New Years day, and though it was certainly dull the florists did better than they expected. Prices were certainly small. The experience of two or three years past shows that Christmas brings a much greater volume of trade than New Years; at the latter time there is very little increase over an ordinary good day.

The retailers still say that a box of choice flowers, especially fine roses, is the favorite holiday gift; baskets are much less called for, and designs have gone out of date. The demand for loose flowers makes a fine quality necessary; there is no use for poor flowers.

EMILY LOUISE TAPLIN.

Boston.

The holiday trade was in the main satisfactory. When we consider what it might have been there is especial cause for congratulation. Plants were in such condition from the long continued warm weather that had a sudden spell of cold and stormy weather been experienced just before Christmas, there would have been almost nothing to sell. As it was about everything was well cleaned up.

The worst "black eye" was sustained by some of the violet growers who had

miscalculated the available crop and the temper of the dealers and came to their senses only when it was too late.

A noticeable feature of the cut flower demand was the call for colored flowers. There were no where near enough red roses or colored carnations. White carnations were also very scarce and hly of the valley, camellias, hyacinths, etc. sold well. But Harrisii lilies and callas moved slowly. Freesias also were difficult to dispose of at any price.

Towards New Year's the lilies sold better and the demand for carnations of all colors continued unabated, but roses eased off somewhat in price. Double pink bonvardia sold well, also magnolietta and Primula obconica.

The great bulk of the holiday trade in the best stores is now in loose cut flowers.

The sale of holly, mistletoe, palm leaves and needle pines shows a large increase over previous years. Southern mistletoe was received generally in splendid condition, but holly was not as well colored as it was last year. W. J. S.

CHICAGO.—Nearly all the florists report a larger Christmas trade than ever before, some a much larger increase than others. Fine roses and violets led in demand, while fancy long stemmed carnations show a further advance in popular favor. Grace Wilders sold readily at \$1.25 to \$1.50 a dozen. Prices obtained by the retailer ranged about the same as last year, those paid were also about the same as last year, possibly a trifle higher on fine quality carnations. Supply was good and equal to demand at prices asked, in fact there was rather a surplus at the last moment, owing to held back stock being unloaded at that time. Quality averaged about equal to last year—a little off on some stock and better on others, averaging up about equal. Trade in Christmas greens was larger, holly leading, and Georgia needle pines coming more into favor. New Year's trade amounted to but little. The trade all through the month of December was the best ever done in that month by many of the florists, but this was due largely to the season of opera which preceded the holidays.

BALTIMORE.—About 25 per cent larger than last year. Less call for P. W. narcissus and tulips. Prices obtained were about same as in former years; prices paid were a trifle higher. Supply equal to demand at prices asked, quality better than last year. Plants for decorations sold well. Our market house did most of the Christmas green trade, the store florists having but little.

RICHMOND, VA.—Much larger than last year, violets and roses leading in demand. Prices obtained were about the same as last year. With the exception of violets and roses the supply was equal to demand at prices asked. Quality somewhat below the standard on account of cloudy weather. Boxes of loose flowers in best demand, no baskets or bouquets called for.

TORONTO, ONT.—Very much smaller than last year, especially at New Year's. More demand for roses and loose flowers generally rather than bouquets. Prices obtained were about the same as last year, those paid were also about the same except for roses, which were a little higher. Supply was not equal to demand owing to so much dull weather, quality compared favorably with last year. Trade in Christmas greens was fully as good as last year, supply of green ran out. The day before Christmas being

rainy and unfit for shopping probably accounts for diminished trade.

COLUMBUS, O.—Much larger than last year with increased demand for roses and holly. Prices obtained and those paid were about equal to last year. With the exception of roses, on which there was a shortage, the supply was equal to demand. Did not dare to order roses from a distance for fear of getting salted stock—our former experience. Quality of what we had was better than ever before. Trade in Christmas greens was larger. Hitherto there has been little or no business for two weeks succeeding January 1, but my business has continued good up to to-day (Jan. 7), at times all I could attend to.

BROOKLYN, N. Y.—Somewhat larger than last year. Prices obtained for roses and carnations were higher and those paid were about \$5 per 100 higher for roses. Supply was equal to demand at prices asked, quality about same as last year. Trade in Christmas greens about 25 per cent larger than last year. The habit some growers have of holding back stock for higher prices and then unloading on to his customers a lot of stale flowers should be stopped.

PHILADELPHIA.—About 20 per cent larger than last year. One florist reports increased demand for orchids. Prices obtained and those paid for roses were slightly lower than last year. Supply was equal to demand at prices asked and quality was better than usual. With the exception of mistletoe trade in Christmas greens was not so large.

CINCINNATI.—Somewhat larger than last year with increased demand for roses. Owing to the scarcity of roses held out for good prices and got them. Prices paid were on roses a little higher than last year and on Romans and similar stuff a little lower. One florist reports that the supply was equal to demand at the prices asked, and another says supply was short. Quality of flowers about as usual. Regarding Christmas greens one florist says that churches used less and stores and restaurants more, and another reports that with the exception of holly and laurel the trade in greens was a failure.

GRAND RAPIDS.—About 10 per cent larger than last year with no marked increase in the demand for any particular flower. Prices were about same as last year. Good supply of flowers, but no surplus and quality good. Trade in Christmas greens was somewhat larger than last year. Trade in loose flowers and boxes of same was larger than last year while demand for baskets was less.

DAVENPORT, IA.—About 10 per cent larger than last year. Everything sold well except Roman hyacinths, which did not sell well until other stock was all gone. Prices obtained were slightly better than last year. Supply was not equal to demand, quality about same as last year. There was a good sale for holly, but not much for other greens.

ST. PAUL.—About the same as last year. There was a noticeable decrease of orders for fine roses and some florists got stuck on the better grade of roses on account of the price. Bons and Gontiers with Romans sold well. Prices obtained were about same as last year, possibly not quite as good. Prices paid were somewhat higher for good roses. Supply was fully equal to demand, some stock left over. Quality fully as good as last year, in some instances better. Holly sold well

and lycopodium was used a great deal more than in former years. Mistletoe did not sell well this year. New Year's trade was light. The business as a whole was cheaper all through the holidays.

ATCHISON, KAN.—Nearly one third larger than last year, prices a little lower, supply of flowers not equal to demand, quality of flowers compared favorably with last year.

UTICA, N. Y.—About 25 per cent increase over last year. Choice roses, carnations, orchids and other choice flowers were in demand in excess of supply. Better prices were obtained for choice flowers than last year, common stuff sold about the same as usual. Sale of Christmas greens was about as usual, much greater competition. Quality of roses and carnations was not quite equal to last year. An increased demand was noted for very choice flowers, such as anthuriums, eucharis and orchids.

ROCHESTER, N. Y.—But little difference from last year in any respect.

DETROIT.—From 25 to 50 per cent larger than last year, best Christmas we ever had. Demand for roses is still on the increase, and an increased demand was noted this season for tulips, valley and violets. Could not get enough American Beauty roses even at \$1 each. Prices obtained were about the same for the usual run of stock, but choice flowers brought better prices. Supply was equal to demand, quality did not average quite as good as last year. Competition in sale of Christmas greens was sharp. Holly sold well. Customers didn't seem to have much ready cash Christmas.

LOUISVILLE, KY.—About 25 per cent larger than last year, an increased demand for carnations, Mermets and red roses. Prices obtained were better on all kinds of flowers, prices paid were about the same as last year. Quality of roses was not as good this year. Sales of Christmas greens were about double those of last year, and the holly was better. We had an abundant supply of bulbous flowers.

ST. JOSEPH, MO.—Larger than last year, roses were most called for, but everything went. Prices obtained were rather better, especially for good roses. Supply was not equal to demand, quality not quite so good as last year. Trade in Christmas greens was about the same as last year. The long continued cloudy weather affected the rose crop, which was light.

NEW HAVEN, CONN.—About the same as last year; increased demand for cheap, showy flowers. Prices obtained were a trifle lower and prices paid higher than last year. Supply fully equal to demand at prices asked, quality generally better. Sales of Christmas greens were larger. Each year proves the fact that reasonable prices give the best satisfaction.

PROVIDENCE, R. I.—Holiday sales were about 25 per cent smaller than last year. Prices obtained were about the same, supply not equal to demand, quality not as good as last year.

NEW BEDFORD, MASS.—About one third larger than last year; increased demand for pinks, violets and potted plants, such as azaleas, ferns, palms, etc. Prices obtained were about the same as last year, prices paid were lower on all except roses. The supply was equal to demand except on roses; quality was better except with those shipped by commission men. A big demand for green wreaths and holly.



LOG FILLED WITH ORCHIDS, ROSES AND ADIANTUM FERNS.

Holly with berries was very scarce and sold for a good price.

INDIANAPOLIS, IND.—About 20-per cent larger than last year, the increased sales being mainly of cheaper flowers, such as bulbous bloom. Prices obtained were about the same as last year, but we had less kicking. Prices paid were higher. Supply was sufficient and quality much better. The competition in the sale of Christmas greens was very keen, and on account of warm weather it was unsatisfactory to handle it. Wouldn't it be a good idea to hang up in every store a printed statement of the reasons why prices are so high at the holidays. It would save a good deal of explaining to customers.

ALBANY, N. Y.—About one fourth larger than last year. Possibly an increased demand for violets. Prices obtained were about the same as last year, prices paid were somewhat higher for roses. The supply was not equal to demand, quality of flowers about the average. Trade in Christmas greens was larger than last year. The dull weather caused many Perles to be malformed.

PORTLAND, ME.—Holiday trade about one third less than last year and prices lower. Possibly an increased call for roses and violets. Supply was not equal to demand, quality not as good as last year. Had no trade in Christmas greens this year; 10 years ago our retail trade the day before Christmas ran from \$250 to \$300.

NEW ORLEANS.—Holiday sales were 50 per cent larger than last year. Roses lead any other flower in demand. Had plenty of bulbous flowers from home grown stock. The large demand and consequent good prices obtained may be attributed to some extent to the large number of strangers in the city. There was a good supply of flowers of excellent

quality owing to the favorable weather. Holly and mistletoe is the only green in demand here at Christmas. The weather is quite spring-like.

DES MOINES, IA.—Holiday trade was about one third larger than last year. There was a larger call for Roman hyacinths, narcissus and carnations. Roses were too high priced at Christmas to sell well here; \$3 a dozen stops sales with us; there was a better demand for them New Years. Prices received were about same as last year, prices paid were higher for Christmas and lower for New Years. Roses were not equal in quality to last year. With the exception of holly and mistletoe the call for Christmas greens was lighter. We could sell many more roses at the holidays if we could buy them so that we could sell at from \$2 to \$2.50 a dozen; \$3 a dozen for Perles scares people here.

ROCKFORD, ILL.—About 50 per cent larger than last year with increased demand for roses. Prices obtained were somewhat lower than last year, those paid were about the same. Supply was not equal to demand, quality about same as last year. Increased trade in Christmas greens.

ERIE, PA.—About 25 per cent larger than last year with increased demand for carnations, violets, bonvardia and hyacinths. Prices obtained and those paid were about the same as last year. Demand exceeded supply, quality better than last year. Sales of Christmas greens about as usual.

EVANSVILLE, IND.—About the same as last year with an increased demand for roses, Roman hyacinths and P. W. narcissus. Prices obtained were about same as last year for roses, higher for Romans, prices paid were about 10 per cent higher. Short on roses, plenty of other flowers, quality not equal to last year, especially

roses. Not so much call for wreathing, about the same as usual for holly. The unseasonable weather had much to do with the limited supply of roses, being cloudy and dark.

LOWELL, MASS.—Larger than last year with increased call for long stemmed pink carnations. Prices obtained and paid were about the same as last year, could have sold more colored flowers, quality about same as last year. Slight increase in sales of Christmas greens.

MONTREAL.—The Christmas flower trade this season has been fully up to the average, perhaps more profitable to the growers than usual, as less flowers were imported from the United States than on some former years. On account of the dark weather roses were rather scarce and not near up to the demand. Violets were very scarce, there being no home supply, but in carnations, Roman hyacinths, narcissus, tulips, lily of the valley, callas, Harrisii lilies and smilax, the supply was about up to the demand. One St. Catherine street florist made a great display in his large window of Chrysanthemum "Christmas Eve" in pots; in the same window were some fine Harrisii. The call for made up work was less than usual, the great bulk of the flowers were sold loose or made up in neat boxes, a custom which is much better for the florist, as he can handle a larger quantity in the same time than he could in the old style of bouquets and baskets. But it has the effect of calling for only first class long stemmed stuff. The sale of plants owing very much to the mild weather was very large. The quantity of Chinese primroses, Jerusalem cherries and cinerarias sold was unprecedented; there was also a call for small palms, dracaenas, etc. The New Years trade, though not up to Christmas, was good; on account of the scarcity of flowers prices were about the same.

There are some complaints about lily of the valley not forcing as quick as usual, some thinking the pips are not as ripe as usual.

WILMINGTON, DEL.—Somewhat larger than last year; prices obtained and paid about as usual at that season; supply equal to demand at prices asked, and quality about equal to last year.

HARTFORD, CONN.—About the same as last year; prices obtained and paid about as usual at that season; supply not quite equal to demand, quality about as usual.

KANSAS CITY.—Somewhat larger than last year, roses as usual led in demand, and there was a good call for Roman hyacinths. Prices obtained were about same as previous years, prices paid were higher on roses, but about the same on other flowers. Supply was about equal to demand at prices asked. Quality of flowers was equal to previous years. Sales of Christmas greens were very large, especially on holly. Competition in sale of wreathing of lycopodium was very sharp, the town being flooded by speculators who had plenty left on their hands. Business in general is increasing here.

CONCIL BLUFFS, IA.—About 25 per cent larger than last year with an increased call for pink roses. Prices obtained were a trifle higher than last year, quality equally as good and supply satisfactory. Our retail prices here are about 15 to 20 per cent lower than Chicago wholesale prices.

MILWAUKEE.—Somewhat larger than last year with increased demand for palms, ferns, violets and lily of the valley. Prices obtained and those paid were about same as last year, quality of flowers better; supply good. Sales of Christmas greens were larger, especially on holly. New Years' trade has fallen off greatly, Christmas trade increased. Bulbous flowers all good except Lilium Harrisii, which was not so productive as last season.

PITTSBURGH.—About 10 per cent larger than last year. Roses still lead, but all good flowers were in demand. Prices obtained were slightly lower and those paid were about the same as last year. Supply of flowers not equal to demand at prices asked and quality rather better than last year. Sales of Christmas greens were slightly larger than last year.

NASHVILLE, TENN.—A shade better than last year; prices obtained were lower and those paid were higher than last year. Supply equal to demand and quality about the same as last year. No increase in the sale of Christmas greens.

MEMPHIS, TENN.—About same as last year with increased call for roses and Roman hyacinths. Prices obtained were higher for roses, about the same as last year for other flowers. Supply was equal to demand at prices asked, quality of flowers good. Weather has been so warm that Romans, narcissus, violets, shrubs, etc. were in bloom outside at Christmas.

BUFFALO.—About 15 per cent increase over last year. Strongest demand was for medium priced roses, less call for common soft stuff. Prices obtained were about same as last year, the very high cost necessitating such a high selling price as to exclude many would-be buyers of certain kinds of flowers. Prices paid were about same as last year—way up, too high at Christmas with a disproportionate drop before New Years. On the average the supply was equal to demand

at prices asked. Quality of flowers was not up to standard. Trade in Christmas greens was rather slow, rainy weather on the 24th interfered somewhat. Could the matter of annually forcing prices up so high at Christmas only to drop again before New Years be obviated much good to the business would ensue. Buyers became discouraged and frightened off at Christmas and get the idea that flowers are beyond their purses all through the holidays.

OMAHA, NEB.—About one third larger than last year with greatest demand for fine roses. Prices obtained were a little higher than last year, and quality a little better. Trade in Christmas greens about the same as last year.

MINNEAPOLIS.—About the same as last year and sales were at about the same prices, though prices paid were higher. Supply was fully equal to demand at prices asked, quality of flowers not quite so good as last year. Sales of Christmas greens were larger than last year.

LEAVENWORTH, KAN.—Slight increase over last year with more demand for carnations. Prices obtained were about the same and prices paid were higher than last year. Demand exceeded supply; noticeable improvement in the quality of flowers. As good a demand as ever for Christmas greens. Wholesale prices of flowers were too high to enable us to profitably buy and sell in this market.

LAWRENCE, KAN.—Much larger than last year with greater demand for roses. Prices obtained were about the same as last year, supply not equal to demand, quality rather better. Trade in Christmas greens not quite as good as last year.

ST. LOUIS.—About 20 per cent larger than last year with increased demand for Beauties and red roses. Prices obtained and quality of flowers were about same as last year. Trade in Christmas greens was larger than ever. Warm weather made holly very poor.

LITTLE ROCK, ARK.—Smaller than last year. Good roses were in best demand. Prices obtained were considerably less than last year. Supply not quite equal to demand, quality better. No trade in Christmas greens. Mistletoe and holly can be gathered in the woods here and it could be bought on the streets from boys. The reason our sales of flowers were not as large as formerly was the exceedingly warm weather we had here for about three weeks before Christmas.

FORT SCOTT, KAN.—Holiday trade was good, 50 per cent greater than last year. Owing to bright weather the flowers were first class. Roses were especially fine and sold readily at a good price. The supply was about equal to the demand. The call was mostly for loose cut flowers.

Decoration at the Patriarch's Ball, New York.

The great hall at the Metropolitan Opera House on January 2, being the social event of the season, naturally called for striking effects in decoration, and while the arrangement was not absolutely novel it was certainly beautiful and effective. The Opera House is such an immense place that it absolutely swallows up a small decoration, and an unlimited amount of stuff was used to fill it.

The idea of the decoration was to turn the auditorium into a northern forest, the foyer and corridors into forest glades, and the stage into a tropic garden, and this idea was very artistically carried

out. Red drapery was first hung along the front of the tiers of boxes to take away the ordinary undecided color, and these boxes being unused were screened and filled so as to give the effect of a precipitous mountain side. The foyer and corridors had walls and ceilings covered with green, holly, southern pine, juniper and trailing vines of ivy and southern smilax, as well as greenhouse smilax and asparagus, a good deal of the latter being used throughout the house. Palms and orange trees stood about in the foyer, and the elaborate tracery of the iron gates at the entries into the house was also hidden by green.

The idea of a forest was carried throughout the corridors, at every angle stood a cypress, and the folding doors opening into the auditorium were screened with ivy.

The front of the first tier of boxes was hidden by evergreen trees and occasionally palms; hung in the trees were masses of tulips, daffodils, hyacinths and here and there an orchid. The interior of the first tier was filled with a bank of evergreens, with a mass of flowers in front; flats of daffodils, tulips and hyacinths, the green of the interior sloping up like a bank. The next tier was similarly filled, but without the flowers, and this arrangement was carried on up to the dome, which was screened by a light arrangement of green. The proscenium arch was also well covered, framing the stage, which was set with a garden scene. Seats were disposed beneath palms and orange trees, while around the back was a raised terrace of flowers, chiefly lilies and pink roses. In the supper room the only decorations were palms on the tables.

It will be noted that very few flowers were used throughout, the largest part of the arrangement consisting of Christmas greens, which have the double advantage of being cheap and effective. A good many palms were of course used. These commonplace materials were arranged with consummate art, and Mr. Klinder has every reason to be proud of his work, though it did not help the languid cut flower trade of January 1. However, it was the largest decoration of the winter, and the general assertion that the vast Opera House looked like a bower was fully borne out. E. L. T.

Adiantum Pubescens.

This useful fern is of the easiest culture, not at all delicate, is graceful and well adapted for use in fern plantations, baskets, etc. It is very largely grown for the purposes named, and those who may be as yet unacquainted with its value will find it a very desirable plant to have. It is a standard sort and small plants can be purchased at very reasonable rates.

Hail Notes.

If your holiday stuff sold for a good price, devote a little of the profits towards insuring your glass against hail. The "hail belt" may come your way before the year is over and you will feel much better if you are insured. Delay is dangerous, as several Philadelphia florists learned last fall at heavy cost. In order to illustrate how much a little delay sometimes costs, we give an incident which occurred in Philadelphia. A prominent florist took out his check book one afternoon for the purpose of sending in an application for hail insurance. A customer at that moment came in for a bouquet; afterwards other matters claimed the florist's attention, and the matter was neglected. Last October he lost



ADIANTUM PUBESCENS.

3000 square feet of glass by hail, and no insurance. It is needless to add he is now a member of the Florists Hall Association. He doesn't intend to get caught again.

JOHN G. ESLER.

Long Island Notes.

BY WM. FALCONER.

A CUT-LEAVED CINNAMON FERN.—Mr. A. Gilchrist of West Toronto Junction, Ont., sends me specimens of *Osmunda cinnamomea* with distinctly incised pinnæ. One of his recent discoveries among wild plants.

RUPELLIA MACRANTHA.—Mr. A. Lindstrom of Richmond Hill, N. Y., says "it is a thriving plant and a good bloomer." Yes, I grow lots of it for mid-winter flowers, and find it very useful for filling up the basket as well as decorating the conservatory.

CHRISTMAS ROSES.—Out in a cold frame covered over at night with mats and shutters I have a lot of *Helicoborus niger maximus* in fine bloom. They are large showy flowers, coarse-appearing to some maybe, but at this time of year it is very handy to be able to cut an abundance of big white blossoms that require no heat in winter nor particular care at any time beyond a little shade in summer and the shelter of a frame in winter to enable us to get fine flowers.

CARRYING A STOCK OF HARDY PLANTS.—"Yes, I am going into hardy perennials,"

said a local florist to me the other day, "but to begin with I will not carry a big lot of them. I will just make a selection of the very finest and most showy sorts and keep good clumps of these and sell by sample; I can make arrangements with large growers to get from them any quantity as I need them."

WILD FERNS.—Some weeks ago I sent the wagon out into the woods around here and brought in quantities of *Aspidium acrostichoides*, plants carrying fine bunches of perfect fronds, and packed the plants close together but quite orderly in deep cold frames which I can get at easily any time during winter. I like the sterile better than the fertile fronds. By getting them in October or early in November we get them while they are in perfect form; if we delay till December they are apt to be a good deal broken. Very nice things to cut from in winter and a saving on greenhouse fern fronds.

THE NEMBRO CHESTNUT.—Your note, page 212, reminds me that our specimen bloomed the summer after it was planted, and when only three years old, and it has bloomed twice a year ever since. This early flowering and fruiting and perfecting two crops of flowers, and setting (but not ripening the second one) two crops of fruit a year has been an annual feature of our plant. We got it from Andrew S. Fuller.

Yes, the JAPANESE CHESTNUT is the early fruiting one. But sometimes it is

and sometimes it isn't. We have a handsome specimen now eight years old and it hasn't blossomed yet! True, at Westbury, Creedmoor and other neighboring places they fruit at three or four years old. But even there, some do and some don't.

CYPRIPEDIUM SPECTABILE is getting scarce as a wild plant. A friend in the cypripedium district writes me: "I had an order for one thousand plants from an English firm, and during the summer I went to find out a good place for them and found a swamp of some thousands of acres with plenty of them in it. But when I went there this fall to dig them the place had been run over by fire which destroyed all vegetation. I then wrote to some friends to assist me in getting the plants, but I have succeeded in getting only two hundred. In fact the cypripediums are getting scarce. And I am thinking about getting a piece of land suitable for them and growing them in it. * * * I believe before many years it will be almost impossible to get any wild plants."

FLOWERS IN SPAIN.—A gentleman recently returned from a trip through Spain speaks warmly of the beauty and sweetness of the different kinds of narcissus growing wild about Gibraltar. And among the most striking plants now in bloom in the gardens he mentions the gorgeous poinsettias. And he brought me home specimens of *Salvia involucrata* var. *Deschampsiana*, *Euchsia corymbiflora*, *Viburnum tinus*, *Bignonia venusta* and *Arbutus unedo* (in fruit). An evergreen in one of the gardens and which pleased him immensely proves to be a Japanese *cephalotaxus*. In the gardens generally he did not find a great variety of plants or anything especially new or uncommon. Crossing to Morocco the most striking plant he saw there was the "branching palm" *Dracena Draco*.

IMPATIENS HAWKERI.—A beautiful flower. The individual blossoms are large and brilliant but not nearly so abundant as are those of *I. Sultanii*, which also is leafier and stockier, and, withal, I think, the better plant.

POINSETTIAS.—There is no doubt of it, we get larger and finer heads as a rule from poinsettias planted out on benches than from those grown on in pots, and they need less care to bring them to perfection.

STEVIA.—The dwarf variety now is mostly grown. Ladies love to cut big bunches of it to use alone in vases. Its full body without stiffness, the fragrant flowers and abundant green, give it a charming effect.

TUBEROUS BEGONIAS.—A friend who makes a specialty of tuberous begonias writes me: "Those that bloomed latest were the best. I have doubles as large as roses and some singles that will easily measure six inches across, good round flowers."

CANNA.—If you have any of the finer dwarf gladiolus-flowered varieties, put a few of them and grow them along and up to the light as you would callas, and note their behavior. Even *Canna Ehemanni* for as big a grower as it is if grown in pots and somewhat curbed for room, keeps within bounds and blooms beautifully.

MUSA ENSETTE FROM SEED.—A neighbor took my advice to buy a hundred seed and sow them at once; this he did about a month ago and now he has got over sixty little plants up and more coming. He sowed in a flat in a warm greenhouse. The seedlings are coming up irregularly.

a few every night. These little seedlings will make splendid plants for spring sales; then if they are planted out in rich, moist, sunny, sheltered land, no tropical plant will grow more luxuriantly or have a more imposing appearance.

BLUE GUM TREES FROM SEED.—Get an ounce of fresh seed of *Eucalyptus globulus*, sow it now and raise thousands of plants. By March they will be pretty little plants in 2½ or 3-inch pots and in good shipping order; but if you wish to grow them on you can have 3 or 4 feet high plants in 8-inch pots by next May. But if this be not desirable you can keep them in good healthy condition in 3 or 4-inch pots till planting out time in May. They grow most as rank as corn the first year. *Globulus* is the commonest and most desirable of any, and a very handsome glaucous, blue-leaved plant for sub-tropical effect in summer gardens.

FEVER TREE is another name for it. Australian fever tree, or Californian fever tree, and many people entertain the notion that the presence of this tree is a sure antidote against malaria, but this isn't so. And every now and again, some poor misguided crank having "discovered" this eucalyptus antidote, yells abroad with philanthropic valor—"plant eucalyptus trees in New Jersey and Long Island, dry up the swamps and rid the country of malaria!" Fiddlesticks! The *Eucalyptus globulus* is not hardy in the north, and I doubt if any other species is either. But, I must allow, we haven't given *E. umigera*, the hardest of them, a trial yet, at least so far as I know.

LATE CHRYSANTHEMUMS.—On the first of last August I put in a lot of chrysanthemum cuttings, choosing fine, fat, succulent points. All struck but not as readily as they would have done in spring. When rooted I potted them off into 3s and later shifted into 4s, and plunged them out of doors in an open bed in the frame ground and left them there till the 15th of November, long after all other potted plants had been housed. They grew from 8 to 15 inches high and many of them had 2 to 5 branches, and they all budded—for to begin with they were only flower tips—and I disbudded them to from 1 to 5 buds each. The late propagation rendered them late in blooming and I left them outdoors just as late as I possibly could with safety in order to keep them still later. Had I shifted them into 5s they would have done still better. But as it was they were a great success, they kept their foliage till the last and every blossom opened beautifully, and I still have (December 17) lots of them in good bloom, but all of my big plants are past. Christmas Eve, Ethel, *Graudiflorum*, Buttercup and Mrs. Langtry and my seedling "3—86" were the cream of them. This seedling is white, and the best of the lot because it is a capital rooster, branches freely, carries many flowers and has fine foliage, at the same time its individual flowers are nothing like as good as Mrs. Langtry, hence it isn't worth a name or being "sent out." I merely mention this to show you how important it is for you to raise some seedlings yourselves every year and choose a few of those you find best for your own use.

And besides their use for late flowers for cutting, these little plants having no heavy bodies or embossed pots looked real pretty stuck in among the cattleys and other greenhouse plants to make a show. And for window plants nothing could be prettier; in fact many of them were sent away for this end. Then how much handier it is to keep over a lot of

these 4-inch pots for spring stock than to save the 8 and 10-inch pot plants.

In most every town and village December is a month of church fairs and at every fair there is a flower stand. Now it occurred to me that little plants such as these—thoroughly well rooted, in full bloom and with fine foliage and as tough and hardy as possible ought to sell at the church fairs.



New Varieties of 1888-9.

The varieties sent out have proved to be on the whole of more than ordinary merit. Taking those of American origin we must mention as being really valuable acquisitions: L. Canning, Mrs. E. W. Clarke, Mrs. Irving Clarke, Mrs. M. J. Thomas, Mrs. A. Blanc, Mrs. A. C. Burpee, Mary Wheeler, Excellent, Violet Rose, Advance, Mrs. I. C. Price, Coronet, Mrs. W. Barr, Llewelyn, Zillah, Miss Esmeralda, Mrs. W. K. Harris, Mrs. A. Carnegie, Mrs. DeWitt Smith, Harvest Queen, Mrs. Judge Benedict.

Of the varieties imported from Japan and distributed here, the collection of 1889 has given us some real gems in the lovely Mrs. A. Hardy, Kioto, Lillian B. Bird, Nessima, Mrs. Fottler, H. Lincoln and Empress of Japan.

Of the Japanese importations sent from England: H. Cannell, C. Orchard and Ed. Molyneux. Other new varieties from England and France, are Avalanche, Mrs. W. Coleman, Mrs. F. Jamison, Sunflower, Lady Dorothy, Miss M. A. Haggas, Miss Violet Tomlin, Mignon, Mons. Bernard, La Tosca, Mme. Ed. Key, Wm. Holborn, Mme. L. Leroy, J. M. Pigmy, Mme. Baco, M. Carnar, Sony. Exposition de Marseilles, Cythere, M. Brunet, Veil d'Or, M. Ed. Andre, Comte de Mun, Mlle. Camille Richards, M. E. A. Carriere, Superbiflora.

Of the seedlings shown for first time this year I can speak highly of the following, and have no doubt there are other good ones which I have not had the pleasure of seeing: Ada Spaulding, Grove P. Rawson, E. G. Hill, Harry E. Widener, John Lane, Shasta, Bohemia, Cyclone, Mrs. T. A. Edison, Zenobia, Mollie Bawn, Mistletoe, Emily Dorner, Emily Riemann, Ramona, Mrs. John Enlen, Mr. Frank Thomson, Eldorado, Mr. W. H. Trotter, Crown Prince, Lady Selkirk, Mrs. Lucy.

Of newly imported Japanese varieties, Louis Boehmer, a pink or lilac rose "Mrs. A. Hardy," will be a fine addition to the ostrich plume class. JOHN THORPE.

Late Flowering Chrysanthemums.

With me and my observations the following chrysanthemums have proved the best this year for flowering about Christmas time:

Edna Craig, a lovely white, and Snow-fairy, a fairy clean white; both are fine pot plants and beautiful cut flowers all through December. Lady Lawrence, Mrs. Beal and Rob. Bottomly (two near alike for separate names), the best large white flower for Christmas time. Snowball, as good as ever, came in about November 15 and kept good a month, but does not like to be made a later flow-

ering, gets red in late flowering plants. Mrs. Frank Thompson is good every time and in every way from November 10 up to January 15, and the later, the whiter it is, until at last it is a clean white.

Chrysanthemums intended for late flowering should be separated from and kept growing later than the October and November flowering. They are the most profitable of all. JOHN LANE.

Chicago.

Correction.

Errors have crept into the notes on "New chrysanthemums for 1890 which originated in Philadelphia."

Please correct as follows:

Gipsy (instead of Eclipse), bright mahogany red in color, very effective, good grower, incurved flower.

Miss Mimie Wanamaker (instead of Comet), very full flower, yellow center, outer petal florets white and drooping, very large. E. L.

Pteris Serrulata.

This is another fern which should be grown by every florist, as it is easily grown and very useful in filling plateaus and for similar work. It is an old sort, but there are probably many who do not appreciate its value to the general florist. It can be obtained at a moderate price from any grower of ferns. The crested form is also very useful.

"Landscape."

"Anglo Saxon, landscape. Seipe is the same as ship in friendship and means the state or condition of being." "A landscape means a piece of the earth's surface, and it is always understood that this piece will have a certain artistic unity, or suggestion of unity, in itself."

PHILLIP GILBERT HAMMERTON, Landscape Painter.

"Our art, to appear to advantage, requires some extent of surface, its lines should lose themselves indefinitely, and unite agreeably and gradually with those of the surrounding country."

ANDREW JACKSON POWING, Landscape Gardener.

"The masses of light and shade, whether in a natural landscape or a picture, must be broad and unbroken or the eye will be distracted by the flutter of the scene."

THOMAS WHATELEY, (*Observations on Modern Gardening.*)

"The principles of landscape gardening we conclude to be derived from nature or developed by the principles of landscape painting."

JOHN CLAUDIUS LONDON, (*Encyclopedia of Gardening.*)

ED. AM. FLORIST.—Can debate be profitable between friends who are agreed upon no premises; who take for granted what is not granted, and who use terms vital to the discussion, one in a different sense from the other? If not, a common understanding among all who are called gardeners as to how the following questions should be answered is much to be desired. Whatever will tend to bring us nearer to it is much to be desired.

1. With what significance, under sound usage, is the word landscape to be prefixed to the word gardening? If "landscape gardening" means anything distinctive from "ornamental gardening," for instance, what is the essence of the distinction? What is the use, what the purpose, of landscape gardening in distinction from other gardening?

2. Can that which is discriminatingly called landscape gardening, and that



PTERIS SERRULATA.

which is discriminatingly called ornamental gardening be fused together so that a given work may be regarded as a perfect combination of both? Is there, or is there not, a liability in attempting such a combination that the purpose of one will antagonize the purpose of the other and the result be confusion rather than fusion—disunity rather than unity?

3. Have in mind a body of land, like the site of Fairmount Park, which is more than four square miles in area, of beautiful but highly diversified topography, with deep valleys and lofty hills, partly wooded, partly open, here divided by a broad quiet pond-like river, here by a brawling trout stream, its banks sometimes bold, craggy and sterile, sometimes flat, fertile and grassy. Suppose that from points within such a body of land, views are to be had miles away toward sunset, ending in wooded heights faintly blue in the distance. If landscape gardening, so called, has distinctive purpose, would it be more or would it be less becomingly applied to such a body of land than to a small body of simple topography, the site of the garden before the cathedral in New Orleans, for example, the Bowling Green in New York or the Public Garden in Boston? And how is it with ornamental gardening?

4. Why should some pleasure grounds be described as parks and others as gardens? Does the term "park-like" mean anything that the term "garden-like" does not? If there is any distinction, what are the leading qualities of a garden other than those of a park?

The irreconcilable answers to such questions that must underlie the habits of

mind of different men, equally intelligent, well informed and interested in the subject, may be inferred from two or three examples of the manner in which such men manifest their ordinary attitude toward it.

In October you printed a paper that had been read before the convention at Buffalo by Mr. McMillan, the gardener of a large rural park outside of that city. It assumed to present certain views of what was considered by the author to be properly called *landscape gardening* and the key to what he thought the significance of the term was probably expressed when he said that the "lay of the land" is the groundwork of *landscape gardening*, these words meaning, I suppose, much the same as the words of my texts. The gist of the paper seems to be given when it says that in dealing with "any grounds of sufficient extent to have a distinctive *landscape* character, the general aim (of *landscape gardening*) will be to make a harmonious combination with the dominant characteristics which nature has already stamped upon the site. He (the *landscape gardener*) will seek a fuller or a richer development of the essential leading features, simply softening what is hard, clothing what is bare, filling out what is meager and enriching what is beautiful, all in harmony with the original type." These sentences sufficiently suggest how the author would answer the questions that I have submitted.

Afterwards (December 1, page 184 and 186) you printed a review of the McMillan paper from the accomplished pen of "Observer," who, while expressing warm

personal regard and friendship for Mr. McMillan, undertakes to show that his views are "in many respects totally erroneous." In combating them he refers to the slight degree in which he found himself interested in what he properly assumes to be a better exposition of Mr. McMillan's view than could be given in words, namely, his park.

This park has two principle features, one is a slightly undulating plain of turf bordered by masses of wood, mainly natural, but here and there pieced out and connected by new plantings and interspersed with a few scattered trees standing singly and in groups with glades between them. Sheep and cows run at large in it, and looking across it in almost any direction the distance is so great that forms and colors blend together, and all detail on the opposite side is obscure. Its "masses of light and shade are broad and unbroken;" its lines "lose themselves indefinitely and unite themselves agreeably and naturally with those of the adjoining country." No object calls for special admiration by itself. Nothing is obtrusive. There are roads and walks and a single group of low buildings, but they are kept so much behind trees and under their shadow that in a general view they are little seen. There is nothing, indeed, to be seen from many points but a broad, far-reaching stretch of partially wooded, slightly rolling pasture land. The other principle feature is a pond of forty or fifty acres with sylvan shores. This has been made simply by scooping the mire out of a swamp and filling the hole with water, so that the shores, except for a little additional planting, are pretty much what nature made them.

This is what Mr. McMillan may be assumed to mean when he speaks of finding the groundwork of landscape gardening in "the lay of the land." Observer speaks of it as *acres of dreary monotony*. He thinks if what he saw is to be called gardening that it compares with the gardening with which he is familiar as "the rude figures and crude paintings that mark the dawn of art" rank by the side of "the Venus de Medici or the Transfiguration of Raphael." He notices that scarcely any use has been made in Mr. McMillan's park of the immensely varied resources of splendor in color that modern scientific and commercial enterprise has recently provided. He saw no rarities, no *nouveautés*. Even the shrubs and perennials were as old fashioned as a last year's bonnet. His conclusion is that in what Mr. McMillan advocates under the name of landscape he is trying to lead a "retrograde movement," a return to the gardening of a primitive stage of civilization.

What do you suppose Mr. McMillan thinks of these comments? May he not be imagined saying to himself: "My friend does not appear to have understood what I meant by landscape, and he is judging operations for the improvement of the natural scenery of a body of land, within which one can have views more than a mile in length, by standards which might be applied, if not to a conservatory opening out of a drawing room, to an urban garden a stone's throw across, formed on made land and surrounded by tall buildings."

Take another case. In your issue No. 103, page 163, another gentleman, reviewing the same McMillan essay, describes a similar experience. There was nothing in the Buffalo Park, he says, that was worth to him the five cents which it cost him to see it, but he recognizes, as "Observer" can not, that it is possible to

apply to such a work another standard than that which he is habituated to use. He does not question that "from a landscaper's point of view" it may have some interest. What do these words imply? How does a "landscaper's" point of view differ from another man's—say a florist's? There is an article in a recent number of your esteemed contemporary, *Garden and Forest*, that may throw some light on the point—the landscaper's point. The writer of it is describing the recent "improvement" of a park in Paris, which, for one of its limited area, formerly had, he says, a certain degree of landscape beauty. Of late it has been attempted to combine with this beauty a share of ornamental beauty. The manner of the attempt is explained as follows: "Trees are encircled by flower beds, and even isolated exotic plants which are placed near them—as if they were not obtrusive enough in themselves—are surrounded in the same way. A tuft of pampas grass, which would be far better away, is rendered doubly bad by its ring of geraniums, or a wide-leaved palm overshadows a circle of crimson coleus." The result is apparently thought to be that landscape unity is destroyed by the ornaments, while the ornaments are displayed at great disadvantage because of the presence of objects and conditions which, left without ornaments, were adapted to give the place a distinctive landscape charm.

Would the following be a much exaggerated statement of the difference between the point of view thus exemplified, and that apparently occupied by those who are of Observer's way of thinking? Observer regards gardening as an "art," in the sense that painting is an art and sculpture another art, each having distinctive aims, each having distinctive principles. It would be better to say that there are really two arts, each having distinctive aims and principles, to both of which the name gardening is applied and is apt to be confusingly applied. To distinguish one from the other the prefixes *landscape* and *ornamental* or decorative, are sometimes used. How do they differ? If a man blind and deaf from birth were to ask how the art of music and the art of painting differ, a part of the answer would be that they respectively appeal to different emotional sensibilities. So, to explain how the two arts differ that are called by the name of gardening, it may be said that works of landscape art are addressed to one class of human sensibilities, works of ornamental gardening to another. Just this is pre-supposed when one says that a certain passage of landscape may be pleasing to those who are sensitive to landscape, but that he himself is not so, and to him it seems only dull and monotonous.

But not used to think of landscape gardening and ornamental gardening as different arts, may ask, if they are so, how they happen to have a name in common? A full answer would include the result of some historical inquiry, but, for the occasion, it may be sufficient to say that, regarded from the physical and superficial rather than the metaphysical, spiritual and essential point of view, which latter is the point of view of art, (that is to say of poetic design, motive or purpose to affect the imagination), they are not to be clearly separated, both having largely to do with the same class of materials and both largely employing the same class of mechanical appliances and handicraft processes in dealing with those materials. The common name witnesses this fact, as smith in coppersmith and in silversmith

testifies of men of different trades both working in metals, with common appliances and common methods.

There were, a year ago or more, as I remember, two short articles in the *AMERICAN FLORIST* from which it might be inferred that you, Mr. Editor, were rather inclined to take some such view as has thus been suggested of the difference between landscape gardening and ornamental gardening. One was a discussion of certain observations upon landscape gardening, so called, that had appeared in the *Century Magazine*; the other a reply to a correspondent, presumably qualified for ornamental gardening, asking how he could best proceed to make himself a landscape gardener. In both you referred to landscape gardening much as you might, I think, if you regarded it as an essentially different art from that of ornamental gardening.

Before fully adopting such a view, I should be glad, as I am sure that many others would, to see a better presentation than I yet have of the reasons that prevent it from being more generally accepted.

AN ATTENTIVE READER.



The Carnation Twitter.

When last Thursday I received the letter of Mr. Hollis, of South Weymouth, Mass., and also the specimens of his afflicted *Garfield* carnations, I was at once reminded that four years ago, when I was endeavoring to establish myself in a new location, that I had some experience of a similar nature, which at the time appeared to be the results of an effort to grow some carnations in solid beds, or as Mr. Hollis expresses it in beds of earth setting on the ground level. That particular occasion was the only time that I ever thought it worth while to try and grow the *Garfield* variety, and that was the only one affected of all those that I was testing that season. But the summer previous (1885) when I was still occupying my old property in the heart of the city, and which was a very hot, dry summer, I one day in order to save watering had a lot of carnations mulched with some fresh stable manure, and very soon thereafter the bulk of the plants were affected in a manner similar to the specimens submitted by Mr. Hollis; it being July we at once drew out all the diseased shoots and destroyed them, since which time I have never noticed the smallest sign of the pest on my premises, except in the other case noted.

From the above experience I have always supposed that the disfigured and distorted carnation growth was caused by an insect, but having occasion to be in New York last Friday, and in order to gain all the information possible on this important subject, I submitted Mr. Hollis' letter and specimens to Mr. Peter Henderson, who unhesitatingly declared that the trouble is caused by an insect. Mr. Henderson calls it the Carnation Twitter and has been a very heavy sufferer from its ravages, and is thoroughly familiar with its *modus operandi*. The insects seem to deposit their eggs among the young terminal leaves of the carnation shoots, the leaves so affected soon adhere together, become distorted, and present

the appearance of having been tied in a knot.

The most efficient remedy that suggests itself to me at present is to remove the affected parts as soon as possible after being detected and burn them. To prevent the appearance of the disease hereafter I would say abstain entirely from the use of fresh or green manure in every shape and form, as I am pretty well satisfied that the use of such manure has more to do with the matter than anything else.

I have no recollection of ever having seen a scientific description of this carnation insect in any horticultural work, and would suggest to Mr. Hollis that he, for the benefit of the fraternity, entrust some of the perfect insects and send them to an entomological expert for identification, description, etc.; we may thereby learn sufficient of its cause and habits to enable us to successfully fight the enemy.

H. E. CHITTY.

Paterson, N. J., Dec. 30, '89.

Carnation Tidal Wave.

This new variety has continued to produce good long-stemmed flowers in fair quantity ever since September, but has greatly improved in quality during the past month. The color is a deep, rich, bright rose, very fragrant; the petals are fringed, and the flowers being raised in the center each one forms a perfect rosette. The habit of plant is dwarf and compact, something in the way of *Portia*, and very free flowering. My carnations were gathered clean the day before Christmas, and again on Christmas day everything at all like a flower was gathered close, but on passing through this morning I noticed that I could easily gather a hundred or more nice flowers of this variety from the 200 plants in the house, and they were so fine, and the stems so clean and long, that I thought a better opportunity would never occur for the *FLORIST* to pass an opinion on its merits, so I gathered a bunch of twenty-five flowers for that purpose, and when I had them all tied up nicely I found it necessary to have a box made specially for their reception. I ordered the box to be made exactly eighteen inches long, and the bunch of flowers just snugly filled it from end to end, which I think is good and sufficient proof of its being a long stemmed variety. I cannot recall a carnation that is anything near the color of this one, that is likely to be so satisfactory in every particular, and have no doubt it will generally be considered a valuable acquisition.

H. E. CHITTY.

Paterson, N. J., Dec. 27, 1889.

[The flowers sent were most excellent and on unusually long stems as described. There is undoubtedly a bright future before this variety. It is well known and much appreciated in the Chicago market.—Ed.]

Best Six Carnations for Cut Flowers.

On page 230 of the *FLORIST* for January 1, just received, W. C. asks for the names of the best six cut flower carnations. He will doubtless find some difference of opinion in a matter of such wide application, but I venture to recommend the following:

No. 1. *Grace Wilder* is a rich pink of a peach blossom shade, deeply fringed and very fragrant, a good grower, may always be gathered with stems ranging from 10 to 20 inches in length, and is always salable.

No. 2. *Portia* is a brilliant scarlet and a very free flowerer, fringed and quite

fragrant, may be gathered with stems from 10 to 20 inches in length.

No. 3. May Queen is a bright rich cherry color and about midway in shade, between Grace Wilder and Portia, a fragrant, free and constant bloomer, good strong habit and may always be gathered with long stems.

No. 4. Anna Webb is a deep crimson, of good habit and free flowering, there are crimsons producing larger flowers, but not so free, I therefore recommend this one for a beginner.



APPEARANCE OF SHOOT AFFECTED BY CARNATION TWITTER.

No. 5. Buttercup is a bright rich yellow, edged and streaked with pink and carmine, a very free flowerer and bold rugged grower, the flowers can generally be gathered with stems from 10 to 20 inches in length.

No. 6. Hinz's White, this in reality is not a white, but may be regarded as a fancy variety of the first importance, its pink and creamy tints sell it very readily, especially as the flowers are mostly quite large and generally produced on long stems.

The above six varieties with ordinary good carnation treatment will flower from the first of October until the benches are needed for the new crop the following year; I would, however, advise a beginner to add to the above a good white, say Silver Spray, and also a few plants of some such variety as Mrs. Carnegie or Hinsdale, both being good free flowering and very desirable varieties, which would add tone to and help sell the others.

H. E. CHITTY.

Patterson, N. J., Jan. 4, 1890.

Wintering Water Lilies.

Having received many letters asking information in regard to wintering water lilies, I thought that a few hints might not come amiss to many who have had little experience in their cultivation.

The hardy ones, such as *Nymphaea odorata*, and varieties, *N. alba* and *N. tuberosa*, if they were planted early enough in the season to get established in ponds or cisterns, will stand the winter where they have grown. The tenderer ones and those not sufficiently established, or which have been grown in sunken pots, tubs or baskets, may easily be removed to a warm cellar where free from frost. If the temperature rises to 50° so much the better, especially for the exotic sorts, which should have all the water poured off the tubs or pans in which they are, and the roots left in the soil they have grown in and which should be kept nearly dry, or just damp enough to prevent the

bulbs or rhizomes from shriveling. The fact is that such kinds as *Nymphaea Devonensis*, *N. dentata* and other strong growing sorts—as they do not ripen their tubers very well—suffer more by being covered with cold water little above freezing point than from any other cause. They should be kept out doors as long as safe from frost, to mature the crowns of the plants as much as possible, and then taken indoors where the conditions above indicated may be found.

Once, having a large quantity of *N. Devonensis*, I placed a couple of quarts of tubers in a glass box and set them under one of the shelves in the orchid house, where they remained for two winters and the intervening summer; the following spring they were planted and all grew except a few on the surface which had been most exposed to the air and had suffered from "dry rot." They keep longer than potatoes if stored in much the same manner.

The small growing kinds, such as *N. flava* and *N. pygmaea* keep best if the soil is kept wet, or scarcely covered with water, and they are allowed to remain in the greenhouse or where they can get some light and warmth as they are to some extent evergreen.

Malden, Mass.

BENJ. GREY.

Spider Lily.

[*Pancratium rotatum*.]

The lily mentioned by your Waco, Tex., correspondent in a recent issue of the *FLORIST* is *Pancratium rotatum*. In this locality it is also known by the name of Spider lily, on account of the long narrow stamens, resembling somewhat the legs of a spider. They are hardy here and require no protection whatever, and give a quantity of bloom during June and July. A good supply of water is required while growing and blooming. The sketch I forward is copied from one of *Vick's Magazine* of 1881. E. RATELLE.

New Orleans, La.

Several other correspondents have replied to Mr. Mayer's query, giving the name variously as *Pancratium rotatum* and *P. Caribbeum*, but it is hardly necessary to print them as so many similar ones have been already given.

Rose Houses.

What is the best pitch for the roof of a rose house when facing the sun?

Does it make any difference whether we have 2-inch or 1-inch planks in the bottom of rose benches? Does the 2-inch plank prevent any heat from getting to the roots that the 1-inch would not?

I should like to have Mr. J. N. Mayer's opinion upon these matters. READER.

Wootton and Beauty.

I must say that some of us who have planted the Wootton rose are sadly disappointed. It does not at all come up to our expectations. Its vigorous growth and fine foliage are the only points we claim for it. The quality of its bloom will never place it among good roses. There was a limited supply of American Beauties for Christmas, which fetched fair prices, but it is the opinion that it is not profitable almost at any price.

Montreal.

JAS. McKENNA.

Rose Salfaterre.

I have two large plants of this rose with 300 feet of growth on each. They run under the glass and on the sides of a house 115 feet long which has a partition

in the center. The first half of the house I keep at from 55 to 60° and cut hundreds of buds or clusters of buds two weeks before Christmas. Since Christmas I have cut from the other part of the house which is kept cooler and which comes in two or three weeks later. By this arrangement I have a big crop on them at Christmas when roses are scarce.

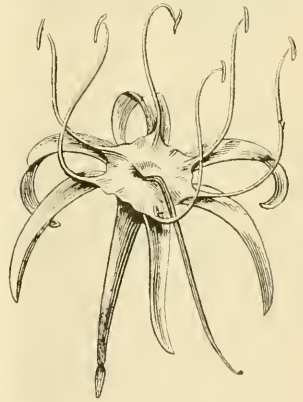
JOHN RALPH.

Saratoga Springs, N. Y.

Chicago Notes and Comments.

BY EDGAR SANDERS.

The magazines and newspapers nowadays have often long articles on the wonders of the flower trade. Nellie Ily's chaser around the world, a Miss Bisland, just before leaving, dropped one of these articles for the *Cosmopolitan* magazine in the December number entitled "The New York Flower Market." Of the great sums that "any retail" bouquet store takes in per day in New York, or the fabulous sums given as the price paid for flowers for certain great balls, or the 140 acre nursery with 25 of them in greenhouses in New Rochelle, Westchester county, we have nothing to say, and suppose they are all true, because the great chaser says so, and she lived around there and obtained the information direct and from headquarters. But when she says, even though it apparently comes from one of these great establishments, "that Lincoln Park, Chicago, had been shipped this autumn \$40,000 worth of



SPIDER LILY

[*Pancratium rotatum*.]

plants" from that same establishment, all we can say is, it's a whopper. Lincoln Park has spent no such sums this year for plants, nay, more, there has not been spent that sum for plants, outside of the hardy trees and shrubs, in the 20 years the park has been in existence. As she says, Chicago levies a special tax, but not alone for plant purposes, but for general maintenance of its parks, and the people pay it willingly, but there are lots of legitimate ways for its expenditure besides such a crazy one.

In the matter of glazing, without laps, set down Florist J. T. Anthony, of this city, as opposed to it. It might do in the country which, however, his gardener doubts, but for city purposes in the dust

and smoke it is a terrible failure. All the under part of the glass is covered with a deposit of dust that creeps through, making it very unsightly and covering the plants with dust, besides being bad for drops.

At Weinhoeber & Co.'s greenhouses at Park Ridge all the violets from which next year's stock is to be grown, are kept in cold frames out of doors. This is in accordance with nature, and we doubt not is far the best for violets or carnations. Don't force or excite those from which your stock is to be raised.

Correction.

In the last number of the AMERICAN FLORIST containing the obituary notice of John Henderson, you had a prefix to the notice which I sent you, which contained the erroneous statement that Mr. Henderson was the author of a standard work on grasses. The first part of the notice was run so close to my remarks that I have been credited with the whole article. It is very mortifying to me, as it places me in the position of being grossly ignorant of my late friend's career. The work on grasses alluded to was written by John Henderson, of Northport, L. I., who was in no way connected with the subject of the obituary notice. P. II.



Odontoglossum grande.

With the increasing demand for orchid flowers during the fall months the blooms of this noble odontoglossum will be appreciated by all who are called upon to furnish choice flowers during this season of scarcity. It sends up its spikes of grand yellow and brown flowers—usually from four to six on a spike—and sometimes two spikes to the bulb—from September to November, furnishing colors so desirable to arrange with the cattleyas, laelias, cypripediums, lycastes and other light colored sorts which may be had in bloom at this season.

Odontoglossum grande is easily cultivated, but requires more decided seasons of growth and rest than many of this genus, notably crispum, one of the best known sorts, which seems to enjoy growing all the year in a moderate temperature. Whereas grande has a long season of rest, during which time it should be kept on the side of dry, in a temperature not less than fifty degrees at night, and then makes its new growths, sending up its flower spikes when the pseudo-bulbs are half grown. During the growing season—the latter half of summer—it requires a good supply of water, but the material should not be allowed to get into a soggy condition. To prevent this, the pots should be nearly filled with crocks and topped round the plants with a little sphagnum, coarse moss or any rough material, such as fern roots, etc. The plant should be grown in a shaded position, as the leaves are sure to yellow if given as much sunlight as many orchids enjoy; besides less frequent waterings are needed to keep the material damp, thereby lessening the danger of rotting the buds at the base of the pseudo-bulbs during the resting period, which begins after the plants are done blooming and lasts about six months.

The flowers vary in color, although not so much as those of the cattleya—some being nearly all brown, while in others yellow predominates, so that there is much pleasant anticipation in watching the flowers open on a batch of these plants. BENJ. GREY.

Malden, Mass.

The Unseasonable Season.

The temperature outside at 6 o'clock this (January 6) morning is 48°, and it is more like late March than midwinter weather. As I have been transplanting trees all day, as I also was most all last week; the ground is as dry and mellow as we have it in April. Openness like this I have never before known. But I tremble for the result. The woodbuds of many trees and shrubs are unduly forward, indeed some spiraeas are bursting their leafbuds. Jasminum nudiflorum is in good bloom. Lonicera Standishii is in full flower and right alongside of it L. fragrantissima has a few open buds, and L. Heckrottii has not yet ceased to bloom. Japanese quince bushes display a few scarlet petals and the Japanese witch-hazel is starting to flower some ten or eleven weeks ahead of time. Rhododendron dauricum has a few open flowers, but this is not unusual. Andromeda floribunda is mostly in full bloom, ahead even of A. Japonica, and the base buds of the racemes of Berberis Japonica are open and yellow. The catkins of hazel bushes are almost ready to shed their pollen, and I find a few periwinkles on warm slopes. Lots of dandelions are in bloom in the grass. Both red and white varieties (the southern form) of moss pink have a sprinkling of open flowers, so too has the yellow rock cress (Erysimum ripense) and perennial candytuft (Iberis sempervirens only). Viola odorata in its single forms has been blooming a little all winter in sheltered places, but, apart from pansies, no other species of violet has essayed to open a bud, no matter how early blooming in spring they are naturally. W. F.

Glen Cove, N. Y.

OBITUARY.

CHARLES ELLIS HITCHINGS, of the firm of Hitchings & Co., died of pneumonia on December 31, at his residence in New York City, aged 36. He leaves a widow and family.

SITUATIONS, WANTS, FOR SALE.

Advertisements under this head will be inserted at the rate of 10 cents a line (seven words) each insertion. Cash must accompany order. Plant ads. not aimed under this head.

SITUATION WANTED—By a young man, where he can learn the florist trade. 1 year's experience; age 17. Address A. P. AKERS, Johnstown, Pa.

SITUATION WANTED—By a true and practical florist and gardener; married; no children. Private place preferred. Best of references. A. DUBER, 92 Union St., Union Hill, N. J.

SITUATION WANTED—By thoroughly experienced florist; is a first-class rose grower and propagator; will be at liberty February 1st. Good reference. Address J. F. FORBES, Kalamazoo, Mich.

SITUATION WANTED—As rose grower or propagator or manager in a commercial place. German; single, 20 years' experience in this country. Would like to go on half shares. Address P. GOEBEL, Hall & Madison Ave. Grand Rapids, Mich.

SITUATION WANTED—By a single man, experienced rose grower, and propagator of all the leading kinds of cut flowers; understand forcing bulbs; good planter, 12 years' experience; references. Address N. F. care American Florist, Chicago.

SITUATION WANTED—By landscape gardener; very capable to lay out the grounds and build the greenhouses. First-class rose grower. Any one wishing such a man, the highest satisfaction will be assured. Gentlemen's place preferred. Please address ESTELLE LITTLEMAN, 404 Second Street, St. Louis, Mo.

SITUATION WANTED—By gardener and planter, of practical and executive ability, long experience in the management of all inside and outside matters. References answering all points. Preference at or near New York. Address FLANNERY, 31 Pacific St., Brooklyn, N. Y.

WANTED—A specimen plant of *Cycas revoluta*. C. B. WHEELER & Co., Milwaukee, Wis.

WANTED—Landscape and vegetable gardener; strong, industrious, sober and sensible man. E. T. NOEL, Nashville, Tenn.

WANTED—An experienced commercial florist and gardener; a single man preferred. Best of references required. Address C. F. GIBBS, Florist, St. Johnsbury, Vt.

WANTED—A commercial florist; single man; must be sober and active, and experienced in roses, carnations, palms and bedding plants. Address JOHN RECK, Bridgeport, Conn.

WANTED—Practical young men accustomed to handle large quantities of general stock correctly and with lightning rapidity. Highest references indispensable. Address H. W. BUCKBEE, Rockford, Ill.

WANTED—Two active young men with some knowledge of greenhouse work; wages \$20 per month and board. Also one man to do office, filing mail and express orders—some experience required. Apply to C. YOUNG & SONS Co., 106 Olive Street, St. Louis, Mo.

WANTED—A first-class florist to take charge of two to three hundred and three houses in Chippewa Falls and two in Keweenaw. Close of 1900 and 26,000 population. To a good, sober man I will give good wages. Address B. F. MILLARD, Chippewa Falls, Wis.

WANTED—A partner; must have commercial and practical experience in propagation. First-class facilities and good trade, can be indefinitely increased. Must have some interest in tenacity reliability. 12,000 feet of glass, 2 acres ground, steam complete. Address CARNELL, care American Florist, Chicago.

FOR SALE—A \$5,000 business on easy terms. For particulars, address X. care American Florist.

FOR SALE—Small commercial florist business. Two houses with beds, etc., complete, in a fast growing Connecticut town. A first-class florist and market gardener. A. Z. care Am. Florist.

FOR SALE—A valuable property in a thriving town in Western New York, 200 feet of glass, well stocked, roses and carnations, good markets, excellent shipping facilities. Particulars and reasons for selling by addressing S. care American Florist.

FOR SALE—A well appointed wholesale florist establishment; 22,000 square ft. of ground, covered with glass, in a lively suburb of New York City. All cut flowers are sold on the premises to first-class retailers, and the demand exceeds the supply. Excellent reasons given for selling. Price, \$50,000, one-third cash, balance on bond and mortgage. For particulars, address THOS. W. WEATHERED'S SONS, 46 and 48 Marion Street, New York City.

FOR SALE—A florist establishment, wholesale and retail, between 50,000 and 60,000 square feet of glass. Well appointed buildings, heated by steam; stock, tools and trade. In a thriving New England city. Houses well stocked and in first-class condition. Superbly adequate for selling. Price, plenty of room to enlarge, and well adapted for a lucrative business. Price, \$2,500. For further particulars address A. L. H. P. Box 288 Providence, R. I.

FOR SALE—An established paying nursery and greenhouse business, one of the best in California, rich soil, fine climate, long easy lease subject to purchase. Close to San Francisco, numerous large houses, heated throughout, complete assortment of landscape, a splendid chance, will pay from the first day. Can be purchased with privilege of trial if desired. Any one in want of a fine established business, heated throughout, one of the best of reasons given for selling. Address for particulars EMORY E. SMITH, 321 Market St., San Francisco, Cal.

FOR SALE.

Several thousand Vicius elastica cuttings; also several very large Ficus trees, 12 to 15 feet high, with from 100 to 250 young ones.

JOHN MILLER, Box K, Glenview, Ill.

PIPE AND BOILERS FOR SALE.

Having introduced steam in our place, we are willing to sell, at a low price, 8,000 feet 4 inch Cast Iron Pipe, and the following Boilers: a large Meyers, 14 feet HITCHINGS. For more particulars Address THE FIFTH EXCHANGE, 614 Chestnut St., Philadelphia, Pa.

TO FLORISTS AND GARDENERS.

I am about to erect for rental on the choicest part of Ninth Avenue, N. Y., opposite Manhattan Square and the Museum of Natural History, a store and greenhouse, to be constructed entirely of iron and glass, and of elegant design.

It will be supplied with steam heat and electric lights, hot and cold water, and fitted with shelving, racks and counters.

This is in the best part of the West Side, and is surrounded by high grade dwellings and a wealthy population.

Plans, terms and full particulars can be had by applying to

C. K. BILL, 62 Liberty St., NEW YORK CITY. Or the "EVELYN," 101 West 5th Street.

THE GREAT RED ROSE.

TRY THE
 **WOOTTON** 
 BEFORE YOU CONDEMN IT.

In order to meet the frequent complaints that the Wootton is not a good red rose for Winter Bloom, we have reduced the price to

\$12.00 PER HUNDRED FOR THE BUDS
 FOR THE NEXT THIRTY DAYS.

OUR STOCK OF ROSE BUDS IS NOW AMPLE TO FILL TELEGRAPHIC ORDERS.

Give our **WOOTTON** a chance in your retail stores. Remember it is an
 AMERICAN SEEDLING.

Telephones 977 and 999. **C. STRAUSS & CO., WASHINGTON, D. C.**

ROSES.

STRONG TWO YEAR OLD IMPORTED, LOW BUDDED.

We offer the following choice sorts in extra heavy, well grown stock:

ALFRED COLOMB.	LA FRANCE.
ANNIE DE DIESBACH.	MABEL MORRISON.
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CAPT. CHRISTY.	PRINCE DE ROHAN.
FISHER HOLMES.	PAUL NEYRON.
GEN'L JACQUEMINOT.	QUEEN OF QUEENS.
JOHN HOPPER.	ULRICH BRUNNER.
JEAN LIABAUD.	WHITE BARONESS.

LOUIS VAN HOUTTE.

Price, \$16.00 per 100; \$140.00 per 1000.

Send for DREER'S WHOLESALE QUARTERLY LIST, mailed free to all in the trade, now ready for Spring of 1890.

HENRY A. DREER, Philadelphia.

IMPORTED H. P. ROSES.

Worked low on the Manett Stock, offer the best results to the florist, blooming freely and giving plenty of cuttings for propagating quickly. Fine plants for sale by the 100 or 1000 at low rates.

Price Lists to applicants. Address

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 JAMAICA PLAIN, (Boston), MASS.

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ROSES ON THEIR OWN ROOTS
 A SPECIALTY.

NURSERY STOCK OF ALL DESCRIPTIONS
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ROSES.

35,000 of the leading Forcing and Bedding varieties: TEAS, HYBRID TEAS, and HYBRID PERPETUALS. Teas, \$5.00 per 100; 11 hybrids, \$6.00 per 100. My selection of varieties. Also the leading Prize winning varieties of CHIRYANTHEMUMS, CARNATIONS, and general Greenhouse stock. Trade List mailed on application.

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 LOUISVILLE, KY.

ROSE "CLOTHILDE SOUPERT."

The best Polyantha-Tea ever sent out.

WE CONTROL THE STOCK FOR THE AMERICAN TRADE.

READY FEB'Y 15, in 2-inch, per 100, \$15. See Nov. 1 American Florist.

GREENHOUSES—Western Springs, Ill. J. C. VAUGHAN, P. O. Box 688, CHICAGO.
 Write for Trade List.

C. M. PRESBY.

CHAS. F. ANDERSON.

JOHN HENDERSON CO.,

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ROSES A SPECIALTY. ROSES.

THE CLIMBING PERLE DES JARDINS.

TO OUR PATRONS, AND THE TRADE GENERALLY:—We are convinced that this Rose will prove of permanent value—indoors and out. Its continuity of flowering, vigorous growth, large flowers, beautiful in color and form—a true Tea—must commend it to all.

Strong plants Ready April 1st, \$1.00 each; \$10.00 per dozen.

All the Old, New and Forcing varieties on hand, at lowest prices.

WRITE FOR CATALOGUES AND PRICES.

100,000 ROSES 100,000

We have doubled our facilities for growing Roses of all sizes, and will be glad to price your lists whenever and whatever you may need. Three acres under glass. Most complete and most select collection in every department. Send for Wholesale and Retail Descriptive Catalogue.

ADDRESS **NANZ & NEUNER,**
 LOUISVILLE, KY.

H. P. AND MOSS ROSES.

2 years, out of open ground, \$80.00 per 1000. Moss, \$100.00 per 1000. Tea Roses, out of 3 inch pots, \$4.00 per 100.

If you need any stock, write for it. I will sell at your own prices, if not too low.

E. HIPARD,
 YOUNGSTOWN, OHIO.

Patentee of the best Ventilating Machinery.

THE AMERICAN FLORIST

Subscription \$1.00 a year. To Europe, \$1.50.

Advertisements, 10 Cents a Line, Agate;
Inch, \$1.40; Column, \$14.00.
Cash with Order.**No Special Position Guaranteed.**
Discounts, 3 months, 5 per cent; 6 months, 10 per cent; 12 months, 20 per cent.
No reduction made for large space.

The Advertising Department of the AMERICAN FLORIST is for Florists, Seedsmen, and dealers in wares pertaining to those lines ONLY. Please to remember it.

Orders for less than one-half inch space not accepted.

Advertisements for February 1 issue must REACH US by noon, Jan. 25. Address

THE AMERICAN FLORIST CO., Chicago.

THE CUT FLOWER TRADE.—A review of the cut flower trade for the past ten or a dozen years can not fail to be instructive. When we note the quantity of bloom that is turned into the market to-day at the holiday season and compare it with that of even ten years ago we can not help a feeling of wonderment as to when the limit shall be reached. But quantity is really of lesser note than the very great improvement in quality. It is well to reflect upon these things, as they show the distance we have traveled in a direction in which it seemed so difficult to advance and proves the possibility of still further progress. The demand for roses of first quality is certainly still on the increase; orchids are gaining rapid headway, though in no way militating against the progress of the rose. A number of the flowers which were some years since a strong dependence are now but little grown, but the rose and the carnation have apparently only fairly begun their reign in the hearts of flower lovers. The improvement in the culture of the carnation has been quite as marked as in the case of the rose, and in fact the progress of the carnation has been even more rapid in the last few years. And since first quality, long stemmed flowers have been placed in the market in quantity this flower may be considered one of the strongest rivals of the rose in popular favor. The lesson taught by our experience is that quality is what we must strive for above all else. Experience has shown us that people will pay for a first class article, and experience has also shown that the difference in cost of producing a good flower and a poor one is slight—that the best flowers are the result of skillful treatment rather than the use of expensive houses or machinery and that brains and executive ability can make the growing of flowers a profitable business, while lack of these essentials can make it a most expensive experiment.

THE HOLIDAY TRADE.—In this issue appears our annual report of the holiday trade, which shows the usual gratifying rate of increase in nearly all sections. That flowers are becoming more and more a necessity to many people and that a refined taste which must be gratified by the skill of the florist is becoming more and more general is evident. We believe that not a little of this increased demand is due to the improved quality of the flowers now grown, owing to the more thorough methods of culture now so general, and that further increase in demand will be governed largely by further improvement in quality, which shall be due to still more general skill in culture. The FLORIST believes that it has been privileged to play no unimportant part in bringing about this most desirable result, that the practical informa-

tion which it has been enabled to present twice each month to the trade has done much toward the general advancement and is gratified accordingly.

HISTORICAL.—The florists of the past generation, those who were privileged to look back and recount reminiscences of the early days of the trade in America are passing away one by one and with them are lost many interesting facts of considerable historical value. The FLORIST believes that an effort should be made to record and preserve these facts for the benefit of the florists of the future and also that many such details will prove of great interest to many of the present generation, hence it invites subscribers to send in any historical notes in their possession, that the same may be placed upon record in these columns. Philadelphia, New York and Boston should be able to furnish a good supply of rich material, and other cities and towns could all add their mite toward a feature which would be at once of great interest and of historical value as well.

THE HARDY PLANT TRADE.—Believing that the florist trade should be prepared to reap the benefit of the increased interest in hardy plants, we have arranged for a series of articles upon desirable sorts from the pen of Mr. Wm. Falconer, which will soon appear in these columns. They will treat entirely of the kinds which florists can profitably handle as a department of their business and we believe will be of peculiar value to the trade at this time. We see the crest of a popular wave which will bring into more prominence many of these plants which have been long neglected, and shall aim to give all needed information in time to make proper preparation to meet it with profit to the trade and satisfaction to the public.

THE NIGHT MAN.—Messrs. Gooding & Leitch, Cleveland, O., write to endorse Mr. Falconer's views regarding the night man, and say that he can do all the work named providing you get the right man, but they have found this difficult. They envy Mr. Falconer his night man and would be rejoiced to secure the services of such a one. Here is another department of the trade. Are you a day workman or a night workman?

WE THANK our readers for the many kind wishes and compliments expressed in letters renewing subscriptions. As it would be quite impossible for us to acknowledge each of these by mail we take this way of saying that the same are greatly appreciated and will spur us to further effort to please.

THE NEW DIRECTORY.—We regret to say that owing to unavoidable delay the new directory will not be ready before the 20th inst. We expected to have it out certainly by the 10th, but found it impossible to do so. We feel that we can safely promise it by the 20th however.

Catalogues Received.

Henry Mette, Quedlinburg, Germany, seeds; Wm. Swayne, Kennett Square, Pa., carnations; F. Barteldes & Co., Lawrence, Kan., seeds; Jno. S. Calkins, Pomona, Cal., trees and plants; W. R. Schmirer, Avondale, Pa., carnations; J. M. Thornburn & Co., New York, trade list seeds; same, retail catalogues; United States Nurseries, Short Hills, N. J., tree ferns; D. Landreth & Sons, Philadelphia, seeds.

Tulip Growing in Illinois.

We have before us a fine bloom of the yellow *Chrysolora* tulip cut from a bulb grown in the State of Illinois. Some few years ago Florist Geo. Klehm, of Arlington Heights, a large grower of cut flowers for the Chicago market, began an attempt to grow himself tulip bulbs for forcing, and he has successfully demonstrated not only that equally as good bulbs may be grown here as in Holland, but that they may be profitably grown. He now has 125,000 bulbs which he is growing on for his own use. This number occupy less than 1½ acre of land, and he states that the expense for labor for the three years growing necessary to secure good sized bulbs has not exceeded \$75 per annum, making expense for labor in the production of 125,000 bulbs but \$225. As the land is valued at only \$130 per acre the interest and taxes are nominal. He is confident that the total expense of producing the 125,000 bulbs will not reach \$300, making the net cost to him about \$2.40 per 1000. And he has the bulbs when he wants them; he is not subject to any annoying delays in importing. This experience proves that there are certainly great possibilities in this direction, and it is not at all improbable that when the facts are more generally known a very large proportion of our forcing bulbs will be grown at home.

Boston Notes.

M. B. Bunker, florist, under the Tremont House, has made an assignment again.

Herman Grundel, one of the pioneer florists of Boston, died at his residence at Eggleston Square, aged 66 years, on Sunday January 5.

The annual meeting of the Mass. Hort. Society took place on Saturday, January 4, and President Spooner made an admirable address. The first meeting for discussion occurs January 11, when an essay on the growth and nutrition of plants will be delivered by Prof. G. H. Whitaker, of the N. H. Experiment Station.

At the January meeting of the Gardeners' and Florists' Club an instructive essay on the education of young gardeners was delivered by Prof. B. M. Watson, of the Bussey Institute. A very interesting discussion followed, on the much disputed comparative value of school training and practical experience. The death of three members of the club was announced, viz: Mr. Herman Grundel, of Boston, Mr. Jas. Croughan, of Lynn, and Mr. F. C. Fisher, of South Sudbury, and committees were appointed to draft suitable resolutions.

There is no lack of material for corner conversations now-a-days. With such a variety of topics as the coming convention of the National Society, the capture of a certain florist's pet consignor by a competitor, the descent upon the city of an eccentric contemporary from Cincinnati, the recent Bunker failure, Wm. Robinson's 16-pound boy, the "grippe", and a stolen budding knife, there is no immediate danger of "immonous desuetude" at the Club. W. J. S.

Mr. Henderson's Bequests.

By the will of John Henderson, who spent most of his life in Flushing, L. I., \$2,000 is bequeathed to St. George's Brotherhood, Flushing, for the erection of an Episcopal chapel at Bay Side; \$1,000 to St. George's Church, \$1,000 to the College Point Mission Chapel, \$1,000 to St. George's Sunday school, and \$10,000 to the Flushing Hospital.—*N. Y. Times*, Dec 30, '89.

THOS. YOUNG, JR.,
WHOLESALE FLORIST
 20 West 24th Street,
NEW YORK.

LILY OF THE VALLEY
 And the Choicest **ROSES** for the
 fall and winter season.

W. S. ALLEN,
WHOLESALE DEALER IN CUT FLOWERS,
 36 EAST 23RD STREET, NEW YORK.
 ESTABLISHED 1877.
 Price List sent upon application.

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 Orders to be shipped will receive prompt attention.

EDWARD C. HORAN,
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 The Bride, Mermets,
 and Am. Beauties,
SPECIALTIES. NEW YORK.

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 Bet. 27th & 28th Sts., **NEW YORK**

HAMMOND & HUNTER,
WHOLESALE DEALERS IN
CUT FLOWERS,
 51 West 30th St., **NEW YORK.**

LaRoche & Stahl,
Florists & Commission Merchants
 —OF—
CUT FLOWERS.
 1237 Chestnut Street, **PHILADELPHIA**
 Consignments Solicited. Special attention paid to
 shipping. Mention AMERICAN FLORIST.

CHAS. E. PENNOCK,
WHOLESALE FLORIST
 38 So. 16th Street, Philadelphia, Pa.

N. F. MCCARTHY & CO.
WHOLESALE FLORISTS
AND JOBBERS IN FLORISTS' SUPPLIES,
 1 Music Hall Place, **BOSTON, MASS.**
 Also entrance from Hamilton Place
 through Music Hall.

We keep a large supply of Fancies and Carnations
 always on hand. Telephone connections. Send
 immediately when unable to fill orders.
AUCTION SALES OF PLANTS SPRING AND FALL

© Wholesale Markets.

Cut Flowers.	
BOSTON, Jan. 9.	
Roses, Teas.....	\$3.00 @ \$5.00
" Paris, Sunset.....	8.00 @ 10.00
" Mermets, Bride.....	12.00 @ 15.00
" Gontiers, Niphetos.....	5.00 @ 8.00
" Hybrids.....	25.00 @ 50.00
Carnations.....	2.00 @ 3.00
Valley.....	4.00
Romans, Tulips.....	4.00
Narcissus.....	4.00
Freesia, bouvardia.....	2.00 @ 3.00
Harlequin.....	15.00 @ 17.00
Violets.....	12.00 @ 15.00
Callas.....	2.00 @ 3.00
Mignonette.....	2.00 @ 3.00
Azaleas.....	2.00
Adiantums.....	1.50
Smilax.....	12.50
Parlayense.....	15.00 @ 20.00

PHILADELPHIA, Jan. 9.	
Roses, Luizes, Laings, Bruuners.....	50.00
" Am. Beauty.....	25.00 @ 50.00
" La France.....	10.00 @ 15.00
" Mermets, Bride.....	12.00 @ 18.00
" Cusins, Wattevelles.....	10.00 @ 12.00
" Gontiers.....	3.00 @ 12.00
" Bennets.....	10.00 @ 15.00
" Perles, Niphetos.....	6.00 @ 10.00
Carnations, long.....	6.00 @ 7.00
Carnations, short.....	7.50 @ 10.00
Violets, single.....	7.50 @ 10.00
Valley.....	6.00
Cypridum.....	15.00
Romans, narcissus.....	3.00 @ 4.00
Mignonette.....	1.00 @ 2.00
Infodile.....	6.00
Freesia.....	2.00
Bouvardia.....	1.50
Smilax.....	15.00 @ 20.00
Adiantums.....	1.00 @ 1.50

NEW YORK, Jan. 9.	
Roses, Bon Silene.....	\$3.00 @ \$5.00
" Gontiers.....	8.00 @ 10.00
" Paris, Sunsets.....	8.00 @ 10.00
" Niphetos.....	5.00 @ 6.00
" Mermets, Bride.....	10.00 @ 15.00
" Cusins, Wattevelles, Albays.....	10.00 @ 15.00
" Bennets.....	10.00 @ 15.00
" La France.....	10.00 @ 15.00
" Am. Beauties.....	25.00 @ 50.00
Smilax.....	15.00
Carnations, long.....	2.00 @ 3.00
Mignonette.....	2.00 @ 3.00
Roman hyacinths, Narcissus.....	4.00
Valley.....	6.00
Violets.....	1.00 @ 1.50
Tulips.....	4.00

CHICAGO, Jan. 11.	
Roses, Perles, Niphetos.....	\$7.50 @ \$8.00
" Gontiers.....	6.00 @ 7.00
" La France, Mermets, Bennets.....	10.00 @ 15.00
" Bon Silene.....	4.00 @ 5.00
" Brides, Cooks, Dukes.....	10.00 @ 15.00
" Am. Beauties.....	25.00 @ 50.00
Carnations, short.....	1.25 @ 1.50
Carnations, long.....	1.50 @ 3.00
Carnations, Grace Wilder.....	12.50 @ 15.00
Smilax.....	12.50 @ 15.00
Romans.....	4.00 @ 5.00
Narcissus, daffodils, tulips.....	4.00 @ 5.00
Valley.....	5.00 @ 6.00
Violets.....	1.50
Callas, Harlequin lilies.....	15.00 @ 18.00
Poinsettias.....	15.00 @ 25.00
Adiantums.....	1.00 @ 1.25
Bouvardia.....	1.50 @ 2.00

WM. J. STEWART,
Cut Flowers & Florists' Supplies
 — WHOLESALE —
 67 BROMFIELD ST., BOSTON, MASS.

GEO. MULLEN,
WHOLESALE FLORIST.
Florists' Supplies Always in Stock.
 17 CHAPMAN PLACE,
 (Off School St., near Parker House),
BOSTON, MASS.
 Orders by Mail, Telegraph, Telephone or Express
 promptly filled.

WELCH BROS.,
WHOLESALE FLORISTS,
 165 Tremont Street, BOSTON, MASS.
 We make a specialty of shipping choice Roses and
 other Flowers, carefully packed, to all points to
 West and Middle States.
 Return Telegram is sent immediately when it
 is impossible to fill your order.

CUT FLOWERS
 The choicest Cut Flowers at lowest market rates
 shipped C. O. D. Telephone connections. Use A. F.
 Code when ordering by telegraph. For prices, etc.,
 Address,
J. L. DILLON, BLOOMSBURG, PA.

HUNT & MARKURTH,
 Successors to
VAUGHAN'S
CUT FLOWER DEPT.

79 LAKE STREET, CHICAGO.

We are now located in our new store,
 and ready to attend to the needs of Cut
 Flower buyers in a satisfactory manner.

OPEN DAILY: Week days till 9 P. M.
 Sundays till 2 P. M.

KENNICOTT BROS.,
WHOLESALE FLORISTS,
 27 Washington Street, CHICAGO.

We always have choice, Fresh Cut Flowers in season.
 The best packers in the trade. Orders promptly
 shipped. Store open until 9 P. M. Sundays until
 2 P. M.

WIRE WORK A SPECIALTY.
 Extra designs made to order. Write for price list.
 Consignments Solicited. Telephone 405.

CHAS. H. FISK,
Wholesale Florist
 AND DEALER IN
FLORISTS' SUPPLIES,
 116 Dearborn Street,
CHICAGO,

Store Open Day and Night.

I keep a full stock of
WIRE DESIGNS
 of superior workmanship and at lowest prices. Ex-
 tra pieces of any description made to order on short-
 est notice. Send for Catalogue.

CUT ROSES AT WHOLESALE.

The only establishment in the west growing
 Cut Roses exclusively.

CUT, PACKED AND SHIPPED THE SAME DAY.

Only handled once, then by experienced per-
 sons. All packages delivered on trains, thus
 enabling parties at a distance to get fresh Cut
 Roses.

Orders by Mail or Telegraph promptly at-
 tended to.

CARFIELD PARK ROSE CO.,
 1688 Madison Street, CHICAGO, ILL.

C. STRAUSS & CO.
 Telephone 977 and 999.

WASHINGTON, D. C.
ROSE BUDS IN ANY QUANTITY SHIPPED
ON TELEGRAPHIC ORDERS.

See our Large Advertisement on page 235.

JOHN M. HUDSON,
 * WHOLESALE *
Commission Dealer in Cut Flowers,
 1225 Market St., ST. LOUIS, MO.

Quick sales and prompt returns guaran-
 teed. Consignments solicited.

CUT FLOWERS AND WIRE WORK
AT WHOLESALE.
THE WISCONSIN FLOWER EXCHANGE,
 133 Mason Street, MILWAUKEE, WIS.

Take Seed Trade.

SEED TRADE ASSOCIATION.

H. W. JOHNSON, Philadelphia, president; ALBERT M. MCCULLOUGH, Cincinnati, secretary and treasurer. The eighth annual meeting at Saratoga Springs, N. Y., June, 1890.

Import Duties.

ED. AM. FLORIST.—Please state in an early issue on which of the following there is an "import duty," viz.: Bulbs, roots, corms, tubers. It appears this information can not be obtained from the treasury department, neither will that department state what plants would be placed under the above classification.

A. B.

[It would be more difficult for us to do this to a certainty than to forecast the weather, for every appraiser in the U. S., possibly 200, has a right to his individual opinion in this matter (and he generally uses that opinion without reference to any actual knowledge of the facts) as to whether he will call these plants or bulbs. As stated in our last issue, canna root was called a bulb in Chicago appraisement and this decision was sustained by the department. We are quite positive that nothing has been definitely fixed in this matter, except that hyacinths and tulips are bulbs, dutiable at 20 per cent., doubtless gladioli also, while lily of the valley pipes or clumps and spiraea are passed duty free as plants. In general we believe that at present in importing any rare or unusual stock in roots, corms, or tubers, the importer would be entirely dependent on the personal whim of his local appraiser, as to whether he should be obliged to pay 20 per cent. or could obtain them free of duty as plants.—Ed.]

THE WORLD MOVES. Mr. Gregory catalogues chrysanthemums and adds his portrait.

B. L. HOFFMEISTER succeeds Hoffmeister Bros. as florists and seedsmen at Fort Madison, Iowa.

MILWAUKEE.—John L. Feber will open a retail seed store at 434 Milwaukee street on February 1.

WM. H. MAULE is out with a 4c. catalogue and so are W. Atlee Burpee & Co. and John Lewis Childs.

A. C. NELLS & Co. are now located at 66 Cortlandt street, N. Y., and the A. C. Nells Co. at 64 same street.

THE A. B. CLEVELAND Co. have made an offer to their creditors of stock to the amount of their claim in the reorganized concern.

A RESUME of the grass seed trade at Chicago for 1889 shows that timothy seed sold lower than it has since 1887, and clover lower than ever before.

THE FOLLOWING appears in an Oregon paper: "The famous Hovey Seed Store, of Boston, and Hovey Nurseries, of Cambridge, Mass., have been moved to East Pasadena, California, where the business will be conducted as The Raymond Flower and Seed Store, C. H. Hovey, manager, East Pasadena, Cal."

MR. MAULE ("Man-ley" as the gardeners say) offers in his new catalogue the *Practical Farmer*, which he calls "The Great Dollar Agricultural Weekly." We join Mr. M.'s friends in the wish that his "Great Dollar" may always remain in the paper as in the title, coming back when wanted, and that the weekly part may never be spelled with an a.

Rubber Packing.

In answer to an inquiry in our last number regarding the use of rubber rings for jointing hot water pipes. They are in use in the greenhouses connected with the asylum for the insane here. They use but one ring to each joint. W.

Nitrate of Soda.

Have any of the readers of the FLORIST had any experience in the use of nitrate of soda as a fertilizer on roses or other plants? If so, in what proportions was it used and what were its effects? W. S.

"FIFTY CENTS worth of fresh and pretty white roses" was a holiday mail order received by Florist P. H. Therkildson, Ironton, O., from the daughter of a millionaire. She generously offered to pay the express charges on same herself. The envelope which brought this order bore 4 cents postage, as befitting so important a communication.

LILUM HARRISII AT CHRISTMAS.—Will some one tell us how Lilium Harrisii should be handled to have blooms at Christmas or New Years. READER.

THE EXECUTIVE COMMITTEE of the Society of American Florists will be in annual session in Boston when this issue reaches our readers.

THE ANNUAL REPORT of the Nebraska State Horticultural Society has been received from the secretary, Mr. G. J. Carpenter, Fairbury.

SUBSCRIPTIONS for the AMERICAN FLORIST may be left with any of the following:

Baltimore,	Philadelphia,
Robt. J. Halliday.	Edwin Lonsdale.
Boston,	Evaus & Battles
Wm. J. Stewart.	New York W. S. Allen,
Cincinnati,	Aug. Rolker & Sons.
Harry Sunderbruch.	C. H. Joesten,
Cleveland, O.	Siebrecht & Wadley.
E. G. Campbell.	Pittsburgh,
Detroit,	J. R. & A. Murdoch.
J. Preitmeier & Sons	St. Louis, Michel Plant
Hamilton, Ont.	& Seed Co.
Webster Bros.	San Francisco,
Harrisburg Pa.	Thos. A. Cox & Co.
J. Horner McFarland.	Toronto, Ont.
Louisville, Ky.	J. A. Simmers.
George Thompson &	Washington, D. C.,
Sons.	L. Schmid & Sons.

News Notes.

OTTAWA, ILL.—F. J. King is very ill at his home in this city.

MOBILE, ALA.—M. Minge added a new house 18x100 this fall.

WEBSTER, MASS.—Eugene O'Hara succeeds Fairbanks & O'Hara here.

ST. LOUIS.—C. A. Kuehn has removed his wire works to 1122 Pine street.

ROCKFORD, ILL.—Mrs. H. W. Buckbee is spending the winter in California.

FT. SCOTT, KAN.—Anna S. Patterson has opened a floral store at 115 S. Main street.

NEW YORK.—Messrs. Peter Henderson and J. N. May are both down with La Grippe.

NORTHBROOK, PA.—E. P. Benard has started into the florist business in a small way here.

PORT HOPE, ONTARIO.—Florist E. N. Mitchell's only son was drowned Christmas week.

HORNELLSVILLE, N. Y.—A. J. Plimpton, of the firm of Plimpton & Miner, florists, died January 2, aged 59 years.

MILWAUKEE.—The monthly meeting of the Wisconsin Florists and Gardeners' Club was held at No. 1 Grand avenue on the 7th inst.

MR. JOHN THORPE has just recovered from an attack of malaria which confined him to the house for a week and has kept him under the weather for some time.

SOUTH ORANGE, N. J.—Joseph Bradbury has added a new house 20x225 to his already large glass surface. Hot water is used for heating. His roses are in as fine condition as one could wish.

PHILADELPHIA.—The firm of M. M. Bayersdorfer & Co., manufacturers of and dealers in florists' supplies, has been dissolved, Mr. M. M. Bayersdorfer withdrawing. Messrs. Harry Bayersdorfer and Paul Berkowitz will continue the business under the firm name of H. Bayersdorfer & Co.

MONTREAL.—The annual banquet of the Dominion Commercial Travelers Association came off in the Windsor Hotel a few days ago. About three hundred sat down. The liberal sum of twenty-five dollars was spent on a plant and flower decoration, button holes, etc. How is that for a holiday order?

KANSAS CITY.—Robt. S. Brown & Sons will close their store on Main street February 1 and hereafter handle all their trade from the greenhouses at 13th and Wabash avenue. The city has grown out to the greenhouses so that they are now almost as convenient as the store to most of their patrons, hence the change.

LITTLE ROCK, ARK.—Owing to remarkably warm weather for the season roses were beginning to get ready to bloom outside when along came a cold snap which nipped them in the bud. For three weeks preceding Christmas the weather was very warm, the thermometer registering as high as 80° on some days and 75° on some nights.

ERIE, PA.—The Erie Chrysanthemum Club has effected a permanent organization and elected officers as follows: President, E. Brewer; Vice-Presidents, H. Tong, H. Niemeier, Wm. Thompson; Secretary, L. H. Conser; Corresponding Secretary, H. Tong; Treasurer, Henry Niemeier. Executive Committee, John Roberts, Wm. Honeysett, E. Neulberger, Chris. Wolf, Bernard Schlandecker, John Miller, G. L. Moody and J. Busceck.

DALLAS, TEXAS.—At Christmas time the weather here resembled that of August. All the plants are growing out of doors; tea roses have made a fine crop of new wood and are all set with buds. Peach trees are swelling their buds, Roman hyacinths and paper white narcissus were in bloom out of doors on Christmas day. A sudden cold spell would give everything a terrible set back. J. M. Howell has opened a cut flower store on Main street.

BALTIMORE.—The Baltimore Cactus Society was recently organized in this city by lovers of these plants. The society has 32 members and officers as follows: John A. Becker, president; Geo. A. Kern, vice-president; Fred C. Reincke, treasurer; Rev. N. Burkhardt, lecturer, and Fred W. Lantz, secretary. The society will promote the cultivation of cacti, and will give annual exhibitions, if possible, in connection with the Maryland Hort. Society. Some of the members of the society have been engaged for several years in the cultivation of cacti, and already have collections of from 200 to 500 distinct varieties.

THE
BEST SEEDS
are those put up by
D. M. FERRY & CO.
Who are the largest Seedsmen in the world.
D. M. Ferry & Co.'s
(Illustrated, Descriptive and Priced
SEED ANNUAL
for 1890 will be mailed FREE to all ap-
plicants, and to last season's customers.
It is better than ever. Every person
using *Garden, Flower or Field*
Seeds should send for it. Address
D. M. FERRY & CO.
DETROIT, MICH.

MINA LOBATA.

The beautiful Mexican Climber. Trade pkt. \$1.00, oz. \$1.00
COSMOS HYBRIDS, 1/2 lb. white, oz. 75c, 1 lb. \$1.00
" " " 1/2 lb. mixed, oz. 75c, 1 lb. \$1.00
STROCKS, 1/2 lb. Giant Perfection ten weeks, mixed,
per oz. 75c, per lb. \$1.00
" " " German Dwarf ten weeks, mixed,
per oz. 75c, per lb. \$1.00
" " " German Dwarf ten weeks, lovely
blue, per oz. \$1.00, per lb. \$2.00
CANNA, 1/2 lb. dwarf, Crozy's named, oz. 50c, 1 lb. \$1.00
A trade list. Special rate on large orders of seeds
and bulbs.

MRS. THEODOSIA B. SHEPHERD,

Bulb and Seed Grower, VENTURA, CAL.
Mention American Florist.



TRY DREYER'S GARDEN SEEDS

Plants, Bulbs, and
Requisites. They are the
best at the lowest prices.
TRADE LIST issued
quarterly mailed free.
HENRY A. DREYER,
Philadelphia

HIGH GRADE SEEDS.

Special value for florists. Trade pkt. 20c, 3 pkts. 50c.
Verbena grandiflora, Mammoth, extra large and fine,
flowers 1 in. in diameter. Mixed colors.
Phlox Drum. Imp. Dwf. Mammoth, very fine mixed.
Thunbergia alata, fine flowering and valuable.
Lycnis grand., intense scarlet, very large and free,
will bloom in pots for spring trade. Hardy.
Clematis crispa, blue, free flowering and fragrant. Hardy.
Phlox paniculata, Imp. plant 50c, extra fine. Hardy.
Platycodon grand. blue, hardy plant of great value.
JOHN F. RUPP, Shrewstown, Pa.

HARDWOOD ASHES FOR SALE

\$25.00 per Car Load including loading.
This is the cheapest Fertilizer I know of,
worth more than ground bone.

J. M. JORDAN, St. Louis, Mo.

HEADQUARTERS FOR LYCOPODIUM, Dry Baled Sphagnum Moss, and CHRISTMAS TREES—AM. SPRUCE.

Buy from first hands and save middle men's com-
mission. Write for prices.

Z. K. JEWETT, Sparta, Wis.

FERNS. FERNS. FERNS. CALDWELL'S Alabama Fancies, Eastern Fancies, Daggers, Polypodium.

In assortment or otherwise, per single thousand,
\$2.00; 2000 \$3.50; 5000 \$7.50. Express charges prepaid
to any address.

CALDWELL, THE WOODSMAN,
EVERGREEN, ALABAMA.

MARIE LOUISE VIOLETS.

Strong, healthy runners can be had at \$5.00 per
1000. Can supply 50,000.

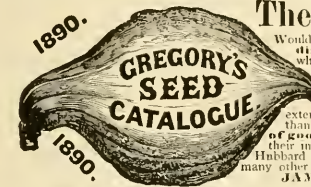
SWAN PETERSON, Gibson City, Ill.

P. S.—Let me know what you have to exchange.

MES. J. S. E. THOMSON offers her ser-
vices, to collect native herbaceous plants for trade.
Caulis mariana, Cyrtopodium nobile, Trillium,
Gentiana Andrewsii, etc., at \$2.50 per 100 plants,
\$20.00 per 1000. List furnished of other varieties
SPARTANBURG, S. C.

THE "PLANET JR"

HORSE HOE has a world-wide fame, and its hosts of friends
will be delighted with its improvements for 1890. First
LEVER EXPANDERS in action, firm,
strong, simple, accurate, perfect.
HANDLE ADJUSTMENT—Silence and for height. Quick, stiff,
grand for grapes, corn and in covering
PARALLEL FRAME Standards, interchangeable, STURGEON
patent, CONVENIENT, invaluable.
We absolutely guarantee our 1890 Horse Hoe and combinations,
and now patented features to please every practical farmer and
gardener, and their money value to be far greater than ever.
Look at it, and write us. Catalogue free. The "PLANET JR"
Hand SEED DRILLS, Double and Single Wheel Hoes, etc., etc.
"Fire Fly" Plow, &c., are indispensable to farmers and gardeners. They meet with regularity any thick-
ness and depth, difficult and easy seeds in small or large quantity, and without danger to vitality and with-
out special care. In market gardening the Wheel Hoes, save their cost every few days. The "Fire Fly" Garden
Plow is a delight in the family vegetable garden. The "Planet Jr." combined Seed Drill, Wheel Hoe, Cultivator
and Plow combines in an admirable way the qualities of all the rest; being delightful as a Seed Drill, Double
Wheel Hoe while plants are small, Single Wheel Hoe, Cultivator—deep or shallow, and Garden Plow.
All the blades of these famous hand tools have long been made of hardened polished steel. Keep them bright and
sharp, and you will save the full cost every few days. Send for full Descriptive Catalogue of all our goods.
Write us your wants. S. L. ALLEN & CO., Sole Mfrs., 1107 Market St., Philadelphia.



The Public Want

Their seed fresh
and true.

Would they not be most likely to obtain such by buying
directly from the grower? I can buy seed at half
what it costs me to raise it, but could not sleep soundly
should I warrant seed of this class. For the same
reason I make special effort to procure seed stock
directly from their originators. You will find in my
new seed catalogue for 1890 (sent free), the usual
extensive collection (with the prices of some kinds lower
than last season) and the really new vegetables
of good promise. You should be able to get from me,
their introducer, good seed of Cory Corn, Miller Melon,
Hubbard Squash, All Seasons and Deep Head Cabbages and
many other valuable seeds, which I have introduced.
JAMES J. H. GREGORY, Marblehead, Mass.

KILLS MILDEW ON ROSES.

GRAPE DUST

SOLD BY SEEDSMEN.
For Samples address SLUG SHOT, Fishkill-on-Hudson, N. Y.

THE American Florist Company's DIRECTORY



OF
(FLORISTS,
NURSERYMEN,
AND SEEDSMEN,
OF THE

UNITED STATES AND CANADA.

FOR 1890

WILL BE READY IN 10 DAYS.

Price, \$2.00.

SEND IN YOUR ORDERS NOW.

The new book is a very great advance upon the old one, as we have covered the
whole country by correspondence and obtained original lists of those in the trade in
every city and town in the United States and Canada. We believe that the list is
now as nearly correct as it is possible to get it.

AMERICAN FLORIST CO., 54 La Salle St., CHICAGO.

Mandevilla Suaveolens.

This is a native of South America, introduced by H. J. Mandeville in the year 1837, and named after him.

A fine deciduous creeper bearing white convolvulus-like flowers which are very fragrant and borne in clusters of three to five. The plant is but little known, but ought to be in every collection.

In the east it would require warm greenhouse treatment and is best grown in a large pot or box and trained as a pyramid.

In Southern California it is quite hardy and blooms from May till August when it is a grand sight. There are specimens in this town very fine.

Santa Monica, Cal. H. S. LEGRAND.

A Query.

Would some one be so kind as to give me a list of the best 25 Japanese chrysanthemums, new or old, for growing as bush specimens for exhibition.

Also how to prevent or destroy a small beetle that eats the center buds out. I had them so bad last summer as to spoil many of the best plants. They commenced about August. J. L. Oshkosh, Wis.

Maybe He'd Never Tried.

Managing Editor: You say here that you have cultivated hothouse lilac bushes that have attained a height of over fifty feet?

Horticultural Editor: Yes, why?

Managing Editor (musingly): Nothing, only I wish I could lilac that.—*Thomas Siftings.*

ZIRNGIEBEL'S IMPROVED STRAINS

—) OF (—

White Asters, Giant Market and Fancy Pansies, Perpetual White Stocks, Giant White Candytuft.

Also a limited stock of SCARLET ASTERS (La Brillante), and the blue variety. Trade packet of any of the above at \$1.00 each. (Our White Aster, of the Multiflora class, is an improved Victoria, earlier and twice as prolific.)

DENYS ZIRNGIEBEL,
NEEDHAM, MASS.

COLEUS, ROOTED CUTTINGS,

in 12 best Bedding and Fancy varieties, including Golden Bedder, Tricolor, J. Goode, Hero, Yellow Bird, Firebrand, Glow, Kirkpatrick, Verschaffeltii.

By Express, 75 cents per 100; \$7.00 per 1000. By Mail, 85 cents per 100; \$8.00 per 1000. Chrysanthemums, Rooted Cuttings, 75 cents per 100.

ALEXANDER MEAD, Greenwich, Conn.

Coleus, Rooted Cuttings.....	Per 100
Geraniums, rooted cuttings.....	1.50
Chrysanthemums, rooted cuttings.....	2.00
Dracena indivisa, 4-inch pots.....	8.00
Mrs. Alpheus Hardy, 2 1/2 inch pots.....	25
Mrs. Andrew Carnegie, 2 1/2 inch pots.....	25

Write for prices on other cuttings.

W. W. GREEN, SON & SAYLES,
WATERTOWN, N. Y.

NEW PRIMULA OBCONICA SEED
CROP (about 1000 seeds) Now Ready
Packet (about 1000 seeds) \$1.00
PRIMULA FLORIBUNDA, pkt (100 seeds) 25c.
PRIMULA OBCONICA PLANTS, from 3 & 3 1/2 inch pots, \$1.25 per doz; \$10.00 per 100.
PRIMULA FLORIBUNDA, 2 inch pot plants, 60 cts. per doz; \$4.00 per 100.

L. N. KRAMER & SON, Marion Iowa

IMPORT AND EXPORT NURSERIES.

A. RIECHERS & SOHNE, A. G.
HAMBURG, GERMANY.

menne stock of Azalea Indica, Camellias, Lily of Valley, Palms and Dwarf Roses.

PRICE LIST ON APPLICATION.



DAHLIAS.

Large Garden Clumps of 50 choice named varieties.

Special Price for Nov. and Dec. Delivery, per 100, \$10; per 1000, \$90.

BEGONIAS REX.

A fine assortment from 3-in. pots, at \$8 per 100.

MICHEL PLANT AND SEED CO.,
St. Louis, Mo.

Any FLORIST or MARKET GARDENER, who has not received our new DESCRIPTIVE and WHOLESALE LISTS for 1890 can have them free on application, if they will state that they saw this Notice in the FLORIST.

PETER HENDERSON & CO.,

35 and 37 Cortlandt Street, NEW YORK.

AUGUST RÖLKER & SONS

Will Remove their

HORTICULTURAL DEPOT

to 136 and 138 W. 24th Street.

ADDRESS LETTERS AFTER JANUARY 1st, 1890

STATION E, NEW YORK.

SPRING BULBS.

MY CATALOGUE OF

Spring Bulbs, Seeds and

FLORISTS' SUPPLIES

is now ready, and will be mailed free to all applicants showing evidence of being **IN THE TRADE.** Address

J. A. De VEER,

183 Water St., NEW YORK.

Mention American Florist.

TUBEROUS BEGONIAS.

SEED saved from the cream of 7,000 plants of superb single varieties, many blooms measuring 5 to 6 inches in diameter, the shades of color are grand. Trade packets (mixed) \$1.00 each.

FISHER BROS. & CO.,

NEW ENGLAND NURSERY. MONTVALE, MASS.

J Langwith Garden.

The largest and best assortment of TROPICAL PLANTS, FLOWERS and SEEDS in the Island of Cuba. Direct to

J. LANGWITH,

Calle Dominguez, No. 17 Cerro,
HAVANA, CUBA

COLEUS.

10" Golden Bedder, 2-inch pots.....	Per 100
100 Verschaffeltii, 2-inch pots.....	2.00
100 Geranium Perfection, 2-inch pots.....	2.00
100 Salvia splendens, 2-inch pots.....	2.00
150 Echeveria secunda glauca, 2 to 4 inches in diameter.....	2.00

Write for prices on Rooted Coleus Cuttings.

S. B. FIELD, Roselle, N. J.

CHAS. KROMBACH,
FLORIST,

MAIN OFFICE, 181 to 187 25th St., Brooklyn, N. Y.
BRANCH OFFICE, 9th Av. & 20th.

Special attention given to the care of lots in Greenwood Cemetery.

Florists knowing of persons who have plots in Greenwood Cemetery which they want cared for, and who will send such to me, will be given a commission of 10 per cent. on the order.

SPECIAL OFFER

SEASONABLE BULBS

We are the largest growers in the country of the following Bulbs and are in a position to give satisfaction both in quality and price. Small lots of all but Tulips can be sent safely and cheaply by mail.

BEGONIAS, TUBEROUS ROOTED VARIETIES IN COLOR
SCARLET, PINK, ORANGE,
WHITE, CRIMSON, YELLOW.

\$1.50 per dozen; \$12 per 100; \$100 per 1000.
Single Mixed varieties in all colors, \$1.25 per doz.; \$10.00 per 100; \$90.00 per 1000.

Double Mixed varieties in all colors, \$4.00 per doz., \$40.00 per 100.

GLOXINIA Crassiflora Grandiflora,

In twelve distinct varieties, named, \$2 per doz.; \$12 per 100. In splendid mixture, all colors, \$1.50 per dozen; \$10.00 per 100.

CALADIUMS, Fancy Leaved Varieties

In 50 best and newest varieties, fine, well matured bulbs to name, \$2 per doz; \$15 per 100; \$125 per 1000.

TUBEROSE, Pearl and Double,

First size, flowering bulbs, \$1.50 per 100; \$12 per 1000.

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Mention American Florist.

Association Flora, Boskoop, Holland.

NOW ON HAND IN NEW YORK:

25,000 Dwarf budded Roses in sorts.
3,000 Rhododendrons in sorts.
3,000 Azalea Mollis and Pontica in sorts.
2,000 Clematis, extra strong plants.
Trees, Shrubs, Evergreens, Conifers, Pæonias and other herbaceous plants.

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Send for Catalogues.

Choice LILY ACRATUM, per 100 or 1000,
Just Received.

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Seed Grower and Merchant,
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(ESTABLISHED 1787.)

Will be pleased to quote special prices for garden, agricultural and flower seeds ordered in extensive amounts, which cover more than 4,000 acres.

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Splendid 1 and 2 year old vines, true to name, grown by an expert. List of varieties and prices mailed on application. HENRY A. DREER,
714 Chestnut St., Philadelphia, Pa.

Philadelphia.

Mr. H. H. Battles, of Evans & Battles, has been very ill with pneumonia. His life was despaired of at one time, but the crisis has been safely passed and he is now on the road to recovery.

Messrs. LaRoche & Stahl, the well known florists and commission merchants of 13th and Chestnut Sts., have finished their new rose houses at Collingdale, on the B. & O. R. R. The greenhouses are built on a 10-acre lot within one half square of station; this land was recently purchased by the firm. Their old plant, which was known as being at Sharon Hill, will be moved next season to the present site. The arrangement of the new houses are something different from what are being built in this vicinity. There are five houses in one block facing east and west; each house is 20x100, equal span; the gutters are six feet from level of walks with a foot walk at north end. You can go from one house to the other without going outside. The heating is done by steam, one large return tubular boiler is used. The piping arrangement is both overhead and underneath, two 1½-inch flow pipes overhead, and six 1-inch returns underneath; there are eight pipes in each house, four on each side; on each side there is a valve so that one or both sides can be used. The water system is very complete, a large well under the boiler furnishing all the water, which is pumped up by an engine direct from the well and then through the greenhouses with a connection in each house. One great advantage of having the well under the boiler is that the water is always warm. There is a large work room 20x100 at north end of the houses. This room is filled up with all kinds of machines and tools to do plumbing, carpenter work and everything else that is needed about greenhouses. Mr. LaRoche has also built a handsome residence on the new site. The house is lighted by thirty-five electric lamps by his own plant, the engine that is used for pumping at greenhouses furnishes the power.

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Compelled to use hard water we were always troubled with scale, especially on the tubes of our boilers. It would destroy the tubes in less than three years. Last fall we tried some of Weldon's economical boiler compound, and find no scales on either tubes, boiler or hot water pipes. We are sure it will reduce our boiler and coal bills. SCHILLER & MAILANDER, Niles Center, Ill.

MANURE exposed to the action of the sun, rain and snow will lose more of its value than would pay for the erection of a good shed to cover it. It will rot quicker and be in better condition for the plants to assimilate if kept under a shed and worked over occasionally also. B.

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We offer for spring shipment, a large and carefully cultivated stock of Norway Spruce, Austrian and Scotch Pines, Norway Maple, Silver Birch, Scotch Elm, European Alder, Ash, Beech, Linden, Laburnum, Mountain Ash, Purple Beech, New Golden Maple and Elms, Golden Spiraea, Golden Silver and Cuck-leaved Elders, Rhododendrons, Roses, Gooseberries, etc., etc. All sizes of No. 1 quality, at lowest prices. JOHN PALMER & SON,

To Have THRIVING PLANTS Use ECLIPSE FLOWER DRESSING. Makes rich foliage and abundant bloom. Inset that your Seedsmen furnish "Eclipse," for send 50 cts. for sufficient for 20 plants for 1 year. Mention this paper. J. P. THOMAS & SON Co., Philadelphia, Pa.



ROSES.

Good strong young 2-inch pot plants at \$30 per 1000; strictly my selection of Teas, Hybrid Teas, and Noisettes, true to name and good varieties, from last summer's propagation.

Gen'l Jacqueminot, at \$5 per 100, \$40 per 1000. GERANIUMS.—Good varieties, my selection, at \$30 per 1000. Single and double. Mme. Schroter, at \$3 per 100. ROSE GERANIUMS, \$3 per 100. FERNS.—Adiantum Cuneatum, and Adiantum Decorum, from 3-inch pots, at \$8 per 100. LATANIA BORBONICA.—5-inch pot plants, at \$4 per dozen; 4-inch pot plants, \$3 per dozen. AMPELOPSIS VEITCHII.—One year old plants, at \$6 per 100. PRIMROSES.—Single, 4-in. pot plants, \$5 per 100. Oenothera, 4-inch pot plants, \$3 per 100 dozen. FUCHSIAS.—Good varieties, 2-in. pots, \$3 per 100. CYRUS RACEMOSUS.—Strong, 5-in. pot plants, \$3 per doz. Strong 4-in. pot plants, \$2.25 per doz. VINCA VARIEGATA.—2 in. pot plants, \$3 per 100. HARRISONII, 2 in. " " \$3 per 100. PETUNIAS.—Double, 12 varieties, at \$4 per 100.

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Choice Seedlings raised by the introducer.

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MRS JOHN S. FOGG, bright yellow.

Full Descriptive List free on application.

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Fuchsia Starlight.

BEST SINGLE. VERY EARLY AND BRIGHT BLOOMING. From 2-inch pots..... \$2.50 per 100 Rooted Cuttings..... 1.50 per 100 Charming, at same price. Geraniums, from 2-in. pots, single and double, named, \$3.00 per 100.

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FLORISTS AND NURSERYMEN SHOULD NOT BE WITHOUT IT.

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 Chrysanthemum Maximum. One of the finest new hardy herbaceous plants, blooming from July until frost, fine for cut flower or pot cul. 10.00.

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 Full stock of New and Standard varieties Roses, Begonias, Calceas, Geraniums, Chrysanthemums, Bedding plants, etc.
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My new seedling, Lady Rachel, deep maroon with variegated shadings; has no competition among existing carnations; very fragrant, of good habit, early bloomer, nearly all on long stems, \$5 per doz., \$20 per 100. Morning Ray, seedling, very fine, of good merit and early, \$1 per doz., \$20 per 100. Mrs. B. Harrison and Amy, seedlings, \$2.75 per doz., \$18 per 100. Wm. Swayne, \$1.50 per 100. L. L. Lamborn, \$3 per 100. Potonia White, Lapurite, Edwardsii, \$1.25 per 100. Hinz White, Snowball, Peter Henderson, Chester City, Silver Spray, Miss Jolliffe, Duke of Orange, Lady Emma, Philadelphia Red, Scarlet King, Portia, Sea-View, Chester, Duke of Canada, \$1.50 per 100. Grace Wilder, \$2.50 per 100. Buttercup, \$3 per 100. Florets of the above varieties \$1.50 per 100. Cash must accompany all orders. Remittances may be made by Money Orders on Kennett Square, or Registered Letter on Poughkeepsie Postoffice. Also can furnish the second edition on Carnation Culture, by L. L. Lamborn, on receipt of \$1.00, on application.

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Schiller & Mailander again offer an unlimited quantity of rooted cuttings of HINZE'S WHITE, at \$10.00 per 100, and EMERSON OF MOROCCO, at \$2.00 per 100. Cash with order.

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Ampelopsis Veitchii

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Japan Ivy.

One year old, from thumb pots, reported before spring, make admirable plants for florists' trade.

Per 100, \$4; per 1000, \$35.

Japan Snowball. CATALOGUE FREE. Shaken out of earth, by mail, at same figures.

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A decided acquisition of merit, and should be in every collection. Flowers are of fine form, very large and showy, size of Ehemannii, of a pure golden yellow, borne in profusion the entire season. Foliage sparse, 5 feet. Crop of 1889. Per packet, 20 cts.; 3 packets for 50 cts.

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Send for Catalogue and Trade List.

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FUCHSIA.—MRS E G. HILL, PHENOMINAL, STORM KING, and others.
COLEUS.—Have a 100 foot house filled with Stock Plants of twenty-two good bedding varieties at 60 cents per hundred; \$5.00 per thousand.
SMILAX AND PANSIES.—Plants once reset, nice and stocky, at 75 cts. per 100; \$6.00 per 1000. These won their way to favor last season, will have treble the quantity this, and solicit a trial.
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With an extra large stock of Coleus and Hinze's White Carnation I am prepared to quote low prices on rooted cuttings of either in quantity. Write and see what I can do on any of the above. **ALBERT M. HERR, Lock Box 338, Lancaster, Pa.**

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A full line of fancy colored, long and short stems. I make a specialty of shipping long distances A full line of **ROOTED CUTTINGS** of standard varieties, now on hand, at reasonable prices
NEW PINK CARNATION "CHRISTMAS."

The company of Grace Wilder. I will now sell Rooted Cuttings of it at \$5 per 100; sent safely by mail. Sample blooms mailed on receipt of 15 cts.

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This Carnation is a cross between Hinz and Peter Henderson, it is pure white, fringed, and very fragrant; all of the flowers are on long stems. The flowers measure from 2½ to 3 inches AN. IT DOES NOT HEART. Its habit of growth is similar to that of the Dew. It is the freest rooter I have ever seen. It will produce more flowers than any other white in the market. I know it to be the best shipper and keeper in the market—I have kept the cut flowers from 10 to 15 days.

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 J. N. MAY.

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 Plants Ready March 15, 1890.

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Azuleons, best market sorts.....	Per 100
Coleus, best new and old, 2½-inch.....	\$ 4.00
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Verbenas, fine stock from pots.....	5.00
Roses, standard sorts, from rose pots.....	4.00
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"..... per 1000, \$40.00	

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Price on application.

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Strong, healthy well rooted, December struck plants, now ready, and extra fine.

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Send for price list of Rooted Cuttings of these and other leading market sorts.

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You can not afford to throw away or waste wood ashes; to expose manure to the action of the sun and rain; grow weeds; raise inferior plants; keep poor unremunerative stock; use poor seed; let boards, nails, glass or tools get out of place or broken; let your neighbors grow better flowers and plants than yourself; neglect your mental culture; think that you are smarter than your neighbors; not to keep a set of books; be ignorant of the topics of the day; let insects eat your plants and flowers without making a prompt practical protest; neglect thorough cultivation; have a dirty house or shed; expect to gather figs from thistles; to let others think for you; or to keep foul-mouthed, bad-principled men about the place.

A. B. C.

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made by the latest improved machinery, are better and cheaper than those made by the old way. Price.

P O B. cars here, free of charge.				
2 -inch.	per 100,	\$3.25	1 -inch.	per 100, \$ 3.50
2 1/2 "	"	3.50	"	" 3.75
3 "	"	4.00	"	" 4.00
3 1/2 "	"	5.00	"	" 5.00
4 "	"	7.25	"	" 11 "
4 1/2 "	"	9.00	"	" 12 "
5 "	"	1.28	"	" 14 "
6 "	"	2.20	"	" 16 "

All pots shipped at fifth-class freight rates. Terms cash.

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GLASS FOR GREENHOUSES.

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Absolutely Imperishable.

No string or wire required.

This label is made of Prepared Copper, extremely soft and pliable, and the name of the plant or tree is written or INDENTED easily with any pointed instrument. The inscription thus made is clear and distinct and will remain so as long as the plant lives.

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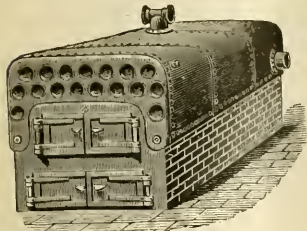
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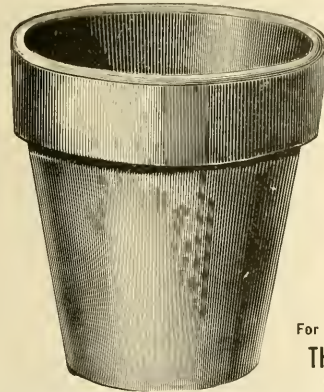
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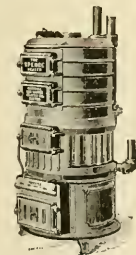
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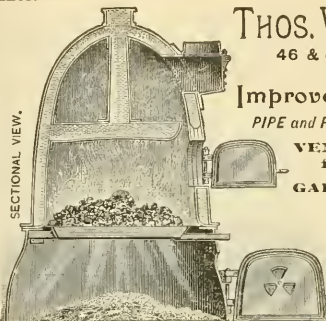
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Index to Advertisers.

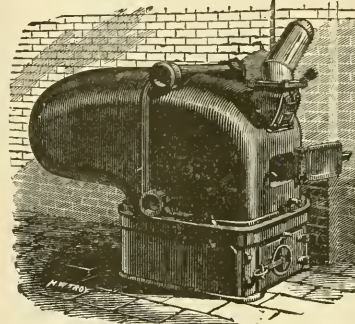
Advertising Rates, etc.	200
Aldine Printing Wks.	270
Allen S. L. & Co.	233
Allen, W. S.	231
Association Flora.	234
Bailey F. A.	235
Bayersdorfer H. & Co.	270
Beard G.	239
Berger, H. H. & Co.	238
Bill C. K.	238
Blackley Printing Co.	239
Blanc A.	239
Brockenridge & Co.	238
Brauer & Richter.	236
Brown R. S. & Son.	237
Burrow J. G.	239
Caldwell Geo. W. John.	238
Carmody J. D.	272
Chitty H. E.	237
Clark W. A.	239
Connolly John J.	238
Carven John Jr.	238
Desmond Wm. & Co.	239
DeVeer J. A.	239
Devine, Peter.	271
Diez, John L. & Co.	271
Dillon, J. L.	261 269
Drer. H. L.	261 269
Drer. H. L.	261 269
Faber Bros.	239 268
Ferry D. M. & Co.	239
Field S. B.	234
Fisher Bros. & Co.	234
Fisk Chas. H.	231
Floral Exchange, The.	238
Fulweiler P. C.	271
Gardner Jno. & Co.	238
Garfield Park Rose Co.	231
Giddings A.	239
Greene W. W. Son & Sayles.	234
Gregory James J. H.	234
Grimth, Jas.	239
Griffith, N. S.	238
Hales, H. W.	239
Hallack, V. H. & Son.	235
Hammond, Benj.	239
Hammond & Hunter.	231
Henderson John Ch.	239
Henderson Peter & Co.	234
Herendeen Mfr. Co.	272
Herr, Albert M.	237
Hillmeier Bros.	270
Hippard E.	239
Hitchings & Co.	272
Hollis George.	236
Hooker, H. M.	270
Horan, Edw. C.	238
Hoy R. D.	238
Hudson John M.	231
Hunt & Markuth.	231
Hughes E. G.	236
Ives, J. H.	272
Jackman Geo. & Co.	238
Jewett Z. K.	233
Johnson & Stokes.	239
Jordan J. M.	236
Kennelott Bros.	231
King J. H.	234
Kramer I. N. & Son.	234
Krick, W. C.	236
Kronbach Charles.	234
Langwith J.	234

Larkin Isaac.	237
La Roche & St.	231
Lockland Lumber Co.	230
McCarthy N. F. & Co.	231
McFarland J. Horace.	236 270
McGowan John.	237
Marc Gabriel & Co.	239
Mathews, Wm.	238
Mead Alex.	234
Meenan Thos. & Son.	234
Merrick, A. T.	236
Mette Henry.	234
Michel Plant Seed Co.	234
Miller, Geo. W.	236
Mullen Geo.	234
Muller John.	238
Nanz & Neuner.	239
National Hot Water Heater Co.	271
Nielson Hans.	237
Palmer John & Son.	236
Pennock Chas. F.	233
Peterson Swan.	233
Pierce Butler & Pierce.	231
Pike Co. Nurseries.	235
Plenty, Josephs.	271
Quaker City Mch. Wks.	270
Reed & Keller.	270
Reynolds Jos.	237
Richers F. A. & Sohn.	234
Roiker, A. & Sons.	234
Ross & Millard.	231
Rupp John F.	233 236
Sargent W. B.	236
Schiller & Mallander.	237
Schulz Jacob.	239
Scollay, John A.	272
Seegers Bros.	235
Shelmirer W. R.	237
Shepherd Mrs. T. R.	233
Sheridan W. J.	231
Sobrecht, Wm.	239
Sievers John H.	239
Sipple Dapple & Co.	271
Sitons, Wm.	238
Smith David.	272
Smith & Smith.	236
Spaulding T. H.	270
Spooner, Wm. H.	239
Start Chas. T.	237
Steffens N.	270
Stewart, Wm. J.	234
Storrs & Harrison Co.	236
Strauss C. & Co.	239 234
Streby S. O.	239
Studer N.	238
Swayne Wm.	237
Syndicate of Growers.	233
Thomas I. P. & Son Co.	235
Thompson Mrs. J. R.	231
Vittschier M. & Son.	238
Van der Schoot H. & Son.	235
Vaughan, J. C.	235 235
Weathered, Thos. W.	272
Welch Bros.	271
Whilldin Pottery Co.	231
Wilks & Mfg. Co.	271
Williams H. W. & Son.	271
Wisconsin Flower Ex. Co.	270
Wood Bros.	239
Young, Thos. Jr.	231
Zirngiebel D.	234



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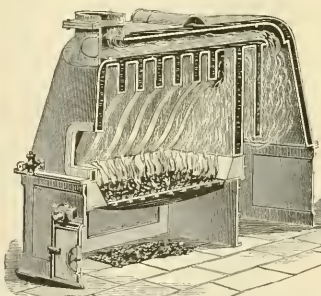


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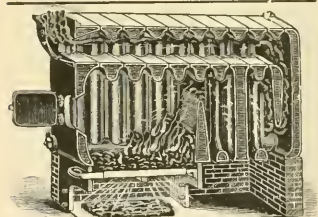
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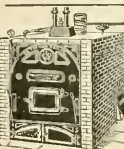
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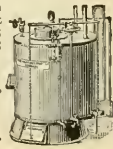
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Vol. V. CHICAGO AND NEW YORK, FEBRUARY 1, 1890. No. 108.

THE AMERICAN FLORIST

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Published on the 1st and 15th of each month by

THE AMERICAN FLORIST COMPANY.

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Address all communications to

AMERICAN FLORIST COMPANY.

51 La Salle Street, CHICAGO.

SOCIETY OF AMERICAN FLORISTS.

J. M. JORDAN, St. Louis, Mo., president; M. H. NORTON, Boston, Mass., vice president; Wm. J. STEWART, 67 Bromfield St., Boston, Mass., secretary; M. A. HUNT, Terre Haute, Ind., treasurer. The sixth annual meeting at Boston, Mass., August, 19, 20, 21, 22, 1890.

CONTENTS.

The Executive Committee meeting	273
Obituary—Peter Henderson	274
Philadelphia	276
New York notes and comments	276
The pink Japan anemone (with illustration)	277
Notes from Boston	277
Roses—Souvenir de Wootton	278
Roses—the best six	278
Roses—the new climbing Niphetos	278
Roses in solid beds	279
Roses—Albany and Hoste	279
Gladiolus "Snow White" (with illustration)	279
Van Leeuwen's mignonette	280
The carnation belt	280
Carnation seedlings	280
Carnation Bertha soper	280
Best six carnations for beginner	280
Propagating from plants formerly diseased	280
Cut worms among carnations	281
Banquet at New York	281
Imitating nature	281
Wholesale cut flower prices	284
Catalogues received	284
Boston notes	284
Seed trade—It comes high	286
Seed trade—notes	286
Nitrate of soda	286
News notes	286
Chicago	286
The New Jersey Club	290
Liberal patrons	292
Do it to-morrow	294

HAVE YOU renewed your subscription for 1890? If not, please do not fail to attend to the matter now.

THE NEW TRADE DIRECTORY is now in the bindery and copies will reach those who have ordered same soon after this issue of the FLORIST.

CALLAS with DOUBLE SPATHES are still frequently sent to us, and for the information of the senders we would say that such abnormal developments are not rare, and of no special interest, hence it is a waste of postage to forward them to us.

TRADE LISTS most frequently go into the waste basket, the FLORIST is preserved for reference. Print your spring trade list in the FLORIST where it will be preserved and do you good much longer than a list mailed by you. Besides it will cost you less money.

The Executive Committee Meeting.

The Executive Committee of the Society of American Florists met in Boston on January 14-15.

Messrs. Halliday, Keller and Burton were unable to be present. All the other members of the committee were on hand, and Messrs. Robt. Craig, Edwin Lonsdale and S. Henshaw, who accompanied them, were invited to act as substitutes for the absentees. The treasurer's report showed a balance on hand considerably in excess of last year and the general condition of the society was found to be prosperous. Messrs. May, Calder and Henshaw were appointed a sub-committee with full power to have the Society of American Florists incorporated (probably under the laws of the State of New York) and to provide an appropriate seal for the society.

The subject of exaggerated illustrations in plant catalogues was thoroughly discussed and an effort is to be made to secure the co-operation of the Seed Trade Association in furthering the work of reform in this direction. Publishers of illustrated catalogues will be invited to send specimens of their publications to the exhibition at Boston in August in competition for the society's certificate of merit.

Another all-important matter that occupied much of the committee's time was the subject of "nomenclature." Mr. J. D. Reynolds, of Riverside, Ill., is chairman of the re-organized committee. The work will be prosecuted vigorously and a most interesting report on the matter may be expected at the convention next August.

It was decided to provide for a competitive display of standard pots, and a certificate of highest merit will be awarded to that collection which nearest approaches the standard. Each exhibit must consist of not less than one dozen of each size, made from working molds and not turned down.

A large amount of material for essays and discussion was submitted and a splendid selection of subjects was made. The list includes Landscape Gardening, Entomology, Hybridization, Horticultural Chemistry, System in Business, Easter Trade, Hardy Herbaceous Plants, Aquatics, etc. These subjects have been assigned to gentlemen of ability whose names will be given at a later date. A large number of interesting and practical enquiries were also received for the Question Box, most of which were also assigned to persons competent to reply to them. A few were left open for general replies.

It was decided that a uniform rental of 25 cents per square foot for floor space in the exhibition hall should be made to all exhibitors regardless of the nature of the goods shown.

The gratifying announcement was made

that the Mass. Hort. Society had arranged to hold its annual exhibition of plants and flowers during the time of the convention. Liberal premiums will be offered and in this exhibition competition will be open to all, free of any entry fee.

The committee decided to appropriate on behalf of the Society of American Florists, the sum of \$100 to be devoted to premiums for table decorations, to be competed for at this exhibition.

The headquarters of the society will be at the Tremont House.

WM. J. STEWART.

—The Executive Committee S. A. F. met promptly at the Tremont House at the usual hour and attended so closely to business that by the following evening they had the programme for summer convention mapped out and all work cleaned up in time to go out and bowl up an appetite for the banquet to which their Boston brethren had invited them. As the FLORIST will have a full account of the meeting from another hand I will not go into details except as to one point, a point on which I hope not to be considered a crank, viz.: catalogue illustration.

It will be remembered that the report of the sub-committee on this subject was at the last summer convention after full discussion accepted and referred to the executive committee with power to act. But alas, the latter saw so many snags in the way that they deemed it inexpedient to carry out the main suggestions in the report, contenting themselves with the very mild and safe measures of inviting co-operation from the seedsmen's association, and also inviting publishers of illustrated catalogues to send in sample copies as an exhibit at the next convention with the understanding that certificates of merit shall be given to the honest ones. This is very well, but it is not enough. I shall not accuse my colleagues of timidity, but somewhere in this Society of American Florists there is timidity, and a good deal too much of it. It is the same here as with nomenclature and every abuse which the society has been asked to correct. There is a dreadful fear that if any really aggressive measures are taken we may get into a row with some one. Well I say let us get into a row if necessary and the sooner the better. By all means let us take all possible precautions against doing injustice to any innocent parties, but there certainly are guilty parties and we are a poor set if we can not devise measures to ferret these out and when found kick up just as big a row as they are willing to join us in.

It was said at the executive committee meeting that the catalogue men are quite indifferent to our puny vapors and would treat with serene contempt any offer we might make to certify as to the faithfulness of their cuts.

This I think is an error. Since the committee adjourned I have found at least one catalogue man, and I don't know why he should not be named, Mr. R. Farquhar, of Boston, who would be glad of our countenance and support in his attempt to dispense with exaggerated illustrations and who has promised to champion the cause of reform at the Saratoga meeting of seedsmen in June. From this able championship I expect results that will shame us out of our hesitating policy.

I firmly believe that the majority of my fellow men in every trade are honest men, that certainly the catalogue men are no exception and that a majority of them will gladly welcome the opportunity to range themselves on the side of fair dealing without misrepresentation of any sort, and will be glad to have the line drawn as sharply as possible between themselves and their unscrupulous competitors.

The sub-committee on catalogue illustrations was but feebly represented at Boston. But one member was there and he found the preponderance of opinion against him. But he believes that the great majority of members of the S. A. F. are with the sub-committee in this matter and has confidence that they will again be endorsed and encouraged to continue the work at the next convention.

JAS. D. RAYNOLDS.

After Adjournment.

The Gardeners' and Florists' Club of Boston, most royally entertained the executive committee S. A. F. at the Tremont House on January 15. The management and arrangements were perfect; the *cuisine* unexceptionable, the speeches called out by toast-master A. P. Calder were short, to the point and for the most part witty, and the decorations, due to the lavish generosity of members of the club were simply superb. It would be cruel to invite the readers of the *FLORIST* to a Barmecide feast so the menu will not be reproduced but the S. A. F. is to be congratulated that the Tremont House has been selected as headquarters next summer, for it is right there that one can get good things to eat at every meal as well as at formal banquets.

But it will be of more interest to tell of the decorations than of a feast that has been eaten, and the decorations were a feast in themselves. The walls were tastefully decked with smilax, asparagus, etc., and around the sides of the room were great laurels reaching nearly to the ceiling, and many fine palms; especially noticeable was a *Cocos Blumenia* furnished by Mr. Becker, said to be the only specimen in the country. On the table were three pot specimens of Norfolk Island Pine (*Araucaria excelsa*) looking so absolutely clean and fresh that it was difficult to believe they had not been that day lifted from their native soil. Then there were great baskets overflowing with roses, tulips, etc., and one contributed by Mr. Harris that was a marvel for the number of rare and beautiful flowers it contained. Rising prominently from the center were scarlet lapagerias, among them one distinctly double and believed to be unique, surrounding these were orchids in splendid profusion, *Calanthe Veitchii*, *C. vestita*, *Calogyne cristata* and *exipriedipendula* of a variety found only in Mr. Harris' collection. Then there was *Bignonia venusta*, *Bougainvillea spectabilis* and other things too numerous to mention, while around the edges drooping gracefully to the table were sprays of *Acacia pubescens*. The

other flowers were left behind and divided with hilarious joy among the waiters and kitchen maids who came trooping in just as the banqueters left the hall, but Mr. Harris' basket was carefully preserved for photographing and it is to be hoped that a successful reproduction of this thing of beauty may be had to grace the pages of the *FLORIST*.

After the banquet, which certainly lasted till bed time, it is said there was an adjourned session in one of the parlors of the hotel lasting till nearly getting up time, but this can hardly be since the guests were on hand bright as larks for early breakfast, and some of them piloted by that genial old-school gentleman Patrick Norton took an early train for Natick to see the famous rose houses of E. M. Wood. Here was found Mr. Alex. Montgomery who has been in charge for many years, and here were found rose houses built just as they ought to be—if only it did not cost so much. Side walls, partitions, walks and even bench supports are all of Portland cement concrete, affording absolutely no harbor for insects, making the work of keeping the houses clean and tidy a delightfully easy one, and leading the visitor to have a sigh of regret that such construction is quite impracticable for the florist of ordinary means. Some of the houses were built for other than their present use and have roofs of so steep a pitch that the center benches are eight or ten feet from the glass, yet the roses in these benches seemed in perfect condition, differing in no wise from those on the sides whose stems grew within a foot of the glass.

Mr. Wood does no fumigating but keeps down greenfly by evaporating tobacco water on a plan somewhat different from Mr. Palmer's. He has iron troughs eight feet long by five inches diameter through which run steam pipes; quite like the evaporating pans for 4-inch water pipe with which we are all familiar. In these troughs broken tobacco stems are placed and covered with water; this seems a convenient arrangement, perhaps more so than steeping the tobacco elsewhere and carrying the liquor to the pans.

Of the roses grown here aside from hybrids, *Mermets* and *Brides* largely predominate and are of the finest quality. One bench of *Cornelia Cook* was seen, 300 feet long, a perfect bank of great white buds such as used to be seen a dozen years ago, but are very rarely met with nowadays. Mr. Montgomery has been trying Dixon's so-called yellow *Mermet* but the buds so far developed look like a rather poor *Bride* trying to revert. It has however a "red *Mermet*" (something which a good many of us have been trying to fix) which he says has proved constant for two years and promises to hear about the same relation to *Mermet* that Albany does to *La France*. No blooms of this sport were seen however.

Mention must not be omitted of a feature that was the first thing to strike the visitors, viz.: The tool room, and this was in the business office. Imagine a great board perhaps 4x8 feet in size fixed against the wall and covered with beautifully clean, even polished steam-fitting tools looking like nothing so much as the exhibit of a tool making firm at some exposition. Each tool has a number and behind it a black silhouette of itself painted on the board so that it can be instantly known, if any space is vacant just what tool is missing. After this the visitors were quite prepared for the evidences of careful and orderly management everywhere apparent in this model establishment.

Returning to the depot in the carriages placed at their disposal by the courtesy of Mr. Wood, the party took the noon train for Boston and there dispersed to their several ways. One would like to close this article by mentioning the name of each kindly Bostonian who gave up his time and devoted himself to looking after the convenience and entertainment of the visitors, but the list would be too long, and to mention any names and not all would be invidious. Suffice it to say that the members of our craft in Boston and vicinity outdid themselves in hospitality and made for themselves, one and all, as many lasting friends as there were members of the executive committee.

J. D. R.

OBITUARY.

PETER HENDERSON.

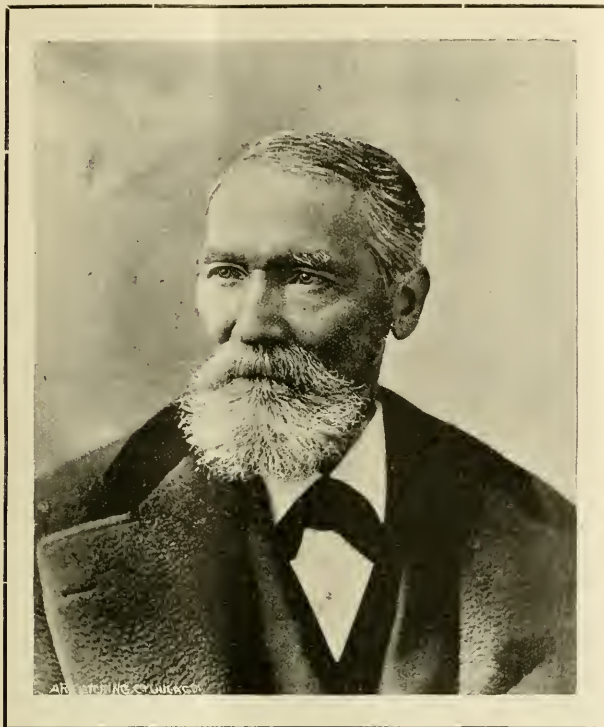
The telegraphic announcement through the public press of the country January 18 of the sudden death of Mr. Peter Henderson was a great shock to thousands of his friends and acquaintances, and especially to the trade. Occupying so long in his own strong individuality a front place in horticulture, his loss will not quickly be forgotten or his memory fade. Hundreds of times have we heard attempts to belittle Mr. Henderson's success; how faulty his judgment, how much assistance was given him in his books or business, and how little of his vast enterprise was really of his own directing. In vain, it only added to the great reputation of him whose name stood at the head of his mammoth business. How great indeed must have been that ability that it could overcome the real errors, the jealousy of competitors, the hundred pitfalls in a long career, and in addition win financial success far beyond all competitors. The story of this poor Scotch boy suggests and fairly meets in romance the story of Melnotte, the Italian gardener's son, who wrested fame from those

"Twin jailors of the daring heart
Low birth and iron fortune."

for he has in our every day working world won the highest place. Truly "Peace hath her victories no less renowned than war."

Exactly four years since the *FLORIST* printed his portrait with biography, Vol. I No. 11. We have received from many friends of Mr. Henderson notes of general interest and condense some of them below. We give the first place to a letter from Patrick O'Mara, who as he writes us, has been in Mr. Henderson's employ as man and boy for 17 years; he says:

"At half past ten on the morning of January 17, in the 67th year of his age, Peter Henderson, the acknowledged Nestor of the florists and seedsmen in the United States, passed away. On Saturday, January 4, he was attacked with influenza, which a week later developed into pneumonia, and which despite the best medical attendance, coupled with the most assiduous and affectionate care of his wife and family, eventually proved fatal. Even during the last few hours of his illness, though his life hung in the balance, yet his family and friends hoped against hope, believing that his vigorous constitution, sustained by the temperate habits of his whole life, would finally triumph over the dread destroyer. But



PETER HENDERSON

it was not to be; the immutable law of mortality sooner or later forces the highest and lowliest alike to bow to its decrees, and, like a child going to sleep, he passed over to the silent majority. The detailed story of his brilliantly successful career, how as a youth of 18 he won golden honors in his native Scotland for his work as a botanical collector and classifier, and how he started in the market gardening and florist business in Jersey City, with limited capital but with unlimited energy and ambition; and how, with remarkable clearness of judgment on all vital questions, aided by an indomitable will, he overcame all obstacles and gradually forced his way into the front ranks, teaching others as he went, remaining a leader up to the hour of his death; this, as well as his wonderful success in the seed business, is already known to the most of your readers and will no doubt be faithfully told in the columns of the *FLORIST* by those familiar with his useful and busy life. One paramount cause of his uniform success may be discerned in the fact that he was never deluded into following an *ignis fatuus*, but with keen penetration always saw the true course to pursue and followed it with unswerving purpose, yet was he always open to conviction and never despised counsel no matter how humble its source. While all about him admired the rare qualities which made him the successful business man and gifted author, yet now that he has gone from among them their minds revert more forcibly to that other phase of his nature whose

generous impulses attracted and held the affection of all who were brought into intercourse with him. The relations existing between him and the older and more trusted of his employees fitly illustrate the kindly and unselfish motives which were the cardinal features of his character. Although he never forgot, nor allowed others to forget the dignity of his position, yet in a measure he identified himself with them and when they were in sickness or in trouble his earnest sympathies were aroused and his substantial aid with his invaluable counsel were always at their disposal. No wonder then that he was regarded with an affection almost filial by the younger portion, or that the older of them feel that by his death they lose a friend who can not be easily replaced. His ear was always open to the tale of the distressed, and when his hand was extended to them it was never empty. No one ever asked his advice in vain, even though it was in the busiest moments of his ever busy life, and his daily correspondence was never without an answer to some one needing his counsel. Many a florist has been sustained by his words of cheerful encouragement, and many a young man has been started on a prosperous career by his sage advice. A gentleman in the broadest sense of the word, chivalrous and kind, he was always so considerate of the rights and feelings of others that he would not wantonly offend a child, and even to the last he was more mindful of the comfort of those around him than of his own. Be-

nevolent in a marked degree, faithful to his friends, firm in his ever rightful purpose, never allowing passion to sway his deliberate judgment, equal to every burden which circumstances placed upon his shoulders, a loving husband, a kind and indulgent father, with nothing lacking to make him a peer among his peers, friends and country might well feel proud of him and sorrowing weep for his loss.

Though vanished from our midst we hold him dear.

And mourn his loss with true affection's tear
His kindly spirit with us long will dwell,
Although we bid his clay a sad farewell.

Mr. John N. May writes:

In every department of his vast business Mr. Henderson always exercised great care and judgment, and while he was a shrewd business man he was also exceedingly liberal to his employees, and always generous where liberality was deserving, kindly and courteous by nature, yet no man could detect an imposition quicker than he could. His death will leave a gap in our profession which it will take a long time to fill; he will be deeply regretted by hundreds of sincere friends in the florist business all over the country. A sad fact in this connection is the illness of Mr. Alfred Henderson who is in Richmond, Va., whose physicians will not permit his return at present.

Another well known seedsman and florist says:

Peter Henderson has left a gap that will remain a long time unfilled, as he had a combination of gifts trained by long usage that became immensely valuable to him, and marked him and his business distinctly from all others. Vick had an individuality strictly his own. Many firms and leading men in the trade we see around us have methods and ways peculiarly their own, but we do not look at them as individuals, but as firms who do so and so from year to year. Peter Henderson gathered the threads of trade in his hands, passed them to his business machine and they never lost the impress of Peter Henderson. Just why it would be hard to say. He could not be said to be the greatest seedsman, the greatest grower, florist or market gardener. But he was a remarkable man. He struck the chord of sympathy and fellow feeling with his craft and with the public early in his career, and kept it up until his last day. At his greenhouses till noon each day he held almost a levee, florists, gardeners, amateurs all received a kind word—advice, encouragement, sympathy and interest to all. Showing them through the greenhouses, taking orders on the go, and above all taking the liveliest interest in his visitors, their business and his, he passed a busy forenoon. Arriving at the store about 1 he was confronted with a stream of callers, a large mail of personal enquiry and advice beside the regular business. Talking to callers, dictating to stenographers. Always pleasant, always ready with a good word for every one. His visitors came in contact with him, rolled away in the sea of humanity carrying the pleasant waves of memory with them and to many of like interest. He was strictly business, but still liked humor connected with his business, whether it told against him or not. Some 25 years ago when my cousin wrote him that a wet nurse should have accompanied the plants he sent because they were so small, he took delight in sending others that did not need this attention and remembering the writer thereafter. Some wondered why he so persistently auctioned plants each year. They forget that years ago when he used to bring

over plants to sell on the sidewalk in New York he usually wound up with a small auction towards night. We don't blame him for keeping his early days and early methods green in his heart.

Emily Louise Taplin in a very interesting letter says:

Soon after his start he began writing for the few agricultural and horticultural papers then in existence here. Among others was a small monthly managed by the elder Hovey, of Boston—a paper long since dead. Mr. Henderson sometimes related with amusement his first meeting with his august editor, who called in Jersey City to see the unknown contributor, whose articles showed such practical knowledge and vigor. When he arrived the famous nurseryman of the future was handling fork and spade in his garden with the practical vigor he showed in handling his pen, and he was a little amused when the visitor asked him with dignity to find Mr. Henderson and tell him Mr. Hovey wished to see him.

His first book, "Gardening for Profit," was brought out while he was in the market gardening business; it has been revised and has passed through several editions. Later he published "Gardening for Pleasure," which was also successful, as was his "Handbook of Plants," and "How the Farm Pays," which was written in collaboration with Wm. Crozier. Mr. Henderson's work on this book was done during some weeks when he was unable to be actively engaged in consequence of an accident.

He enjoyed superb health up to the time of his last illness and he always spent three or four hours a day in the open air. Though encumbered with the many cares attached to such a vast business, of which he was the mainspring, Mr. Henderson never seemed worried or harassed; his was emphatically a sound mind in a sound body. His ceaseless activity never seemed toilsome, and he enjoyed life fully. Though thoroughly abstemious in his habits he was fond of social intercourse, and his wide knowledge, keen observation and shrewd but kindly speech made his conversation both entertaining and instructive. The writer never heard him say an unkind thing of any one; if he expressed disapproval it was done in such a way that it left no sting behind. Mr. Henderson modestly ascribed his business success largely to two things—his temperate habits and the liberal use of printer's ink. He studied advertising as a science, so that his name has become a veritable household word, and he always appeared to foresee any business demand in time to supply it. In the trade Mr. Henderson was actively interested in the American Seed Trade Association, the Society of American Florists, the New York Horticultural Society, and the New York Florists' Club; he was also identified with various undertakings in Jersey City, and was known as a man of unostentatious liberality.

His funeral, which took place January 20, was very largely attended, most of the prominent florists, growers and seedsmen of New York, Philadelphia and adjacent points being present, as well as Mayor Cleveland and other prominent citizens of Jersey City. A quantity of beautiful flowers adorned the casket. Mr. Henderson leaves a widow, two sons, who were his business partners, and a daughter, Mrs. Robt. Floyd, a lady of literary accomplishments, author of some charming magazine verse and short stories.

The world in general knows Peter Henderson as one of the most active, farsee-

ing and prominent men engaged in horticulture, but those who had the privilege of his friendship will remember him as a man just and upright, firm faithful and genial, whose friendship was unwavering and whose justice was always tinged with mercy.

John Thorpe says briefly but strongly:

Mr. Henderson's death has made a great breach in horticulture. For without any question he was the peer of all his brethren, he was a man who to be acquainted with was an honor. To have his friendship was worth more than gold. To obtain his advice was to possess jewels. In his demise the people of America have lost the casket and the jewels, for who had more acquaintance, more friendship, or who gave more sound advice?

Philadelphia.

January 21 was the 61st anniversary of the Pennsylvania Horticultural Society, and on that date Mr. George W. Childs, the newly elected president of the society, took his seat. The meeting was very largely attended, among those present being representatives of the New York Florists' Club, the Society of Indiana Florists, the Germantown Horticultural Society, and florists from New Jersey, New York, Washington and Delaware. It was made a gala day by the florists, who had elaborately decorated the rooms at Horticultural Hall for the occasion.

Mr. Robert Craig, one of the vice-presidents of the society, made a brief address introducing the president elect, who in his address stated that the society was, he believed, the oldest institution of the kind in the United States, going back 60 years and having a most creditable history. He named the eminent Philadelphians who were among its founders and had been its presidents since, making special mention of Mr. William L. Schaffer who occupied the chair for 17 years, and said that the action of the society in electing him to succeed such distinguished citizens was a very acceptable compliment and an honor he highly appreciated, and concluded as follows:

"The society has held sixty autumnal exhibitions, many hundred monthly shows of plants, flowers, fruits and vegetables, and has distributed nearly \$40,000 in premiums. During the last quarter century there has been a largely increased interest in horticulture, and there should be a corresponding increase in the scope and usefulness of our society. It will be a pleasure to me to co-operate with you in the promotion of that object in every way in my power."

At the conclusion of Mr. Childs' address Secretary Farson read several letters from sister organizations including the Society of Indiana Florists, the Gardeners' and Florists' Club of Boston and the Florists' Club of Philadelphia, all accompanied by handsome baskets of flowers. Flowers were also sent by the New York Florists' Club and the Chicago Florists' Club.

Dr. Reed made a short address expressive of his sincere gratification at the election of Mr. Childs as president. He made a graceful reference to the meeting of the Society of American Florists in this city three years ago, on which occasion they were elaborately entertained at "Wootton," the country residence of Mr. Childs. He referred to the great advancement of horticulture during the past few years, and spoke of the many magnificent private collections which exist in all parts of the country. He prophesied that with Mr. Childs as president, the Pennsylvania society would soon stand at the

head of similar societies in the country. He thought the society should place a high value on the acceptance of the office by one who had been thought fit by his fellow citizens to occupy the highest office in civic life. He is a man, said Dr. Reed, who has said little and done a great deal; of few words and great works; whose name is cherished in every section of this large domain; is almost a household word in every section and is revered and beloved by us all. The society should congratulate itself that one endowed with so many gifts, so slow to accept, but deserving all honor, should have accepted this post.

Congratulatory remarks were also made by Wm. F. Dreer, M. A. Hunt, president of the Society of Indiana Florists, and Chas. H. Miller, landscape gardener of Fairmount Park. Regarding the display Mr. Miller said: "I never saw a small collection with so many rare and choice flowers."

A large number of special premiums for the next chrysanthemum show was announced and ten new members were elected.

The exhibition of plants and cut flowers, although not large, was remarkable for quality. What was considered the choicest collection of plants was exhibited by David Emery, gardener to C. Dissel, of the firm of A. C. Yates & Co. It included rare and well-flowered orchids and other plants. Among the former was a large specimen of *Cyclopogon cristata* with nearly 100 blossoms, and a fine plant of *Dendrobium Wardianum*, with an equal number of flowers.

Mr. W. K. Harris exhibited *Lilium Harrisii* and his new late blooming chrysanthemum and Mr. John Wooding a group of cinerarias in good bloom. Chas. F. Evans exhibited orchids, and a large collection of cacti was shown by Mr. A. Blanc. A small but choice collection of ferns and orchids were from Henry A. Dreer, and the rare *Cattleya trianae* from Henry Surman, gardener to E. W. Clark. Craig & Bro. exhibited some magnificent roses; Pitcher & Manda, Short Hills, N. J., orchids; J. N. May, Summit, N. J., orchids, roses and mignonette; Wm. Swayne, Kennett Square, Pa., seedling carnations; Edwin Lonsdale, a fine collection of cyclamens; John Burton, a large assortment of roses, including the handsome hybrid *Ulrich Brunner*; and a remarkable exhibit for this time of the year, of hardy and wild flowers by John Bell and Mrs. Ingersoll.

New York Notes and Comments.

Some of the showy varieties of amaryllis have sold well in the flower market during the last two or three seasons. The light colored and striped hybrids do not seem to take quite as well as the solid colors, the well known *A. adula* platypetala being a favorite. It is not only a showy color, but is also so robust in habit; a good many of the others are apt to be weak in the stem. Around the holidays good spikes brought a comparatively high price. It is no trouble to grow, receiving the same general treatment as a calla; of course it needs plenty of water after being brought in. Some very fine specimens recently seen were 10-year old bulbs, they averaged two spikes to a bulb, with two great flowers on each spike. The best flowers were on bulbs over four years old; naturally they will keep on blooming for an indefinite number of years. As a rule, growers prefer single bulbs in a pot rather than masses as being more handy. Occasionally they are seen planted out in a bed,



THE PINK JAPAN ANEMONE IN THE GARDEN.

but like a calla, they seem more satisfactory in pots. With the eucharis, however, the case seems just opposite; the best result seems always obtained when planted out on a bench.

We still hear of many failures among hybrids, the result of poorly ripened wood. Roses generally continued quite poor during January, but although prices seem poor, it looks as if growers would not come out so far behind after all. It is a little surprising, considering the way violets have been ruined by disease for several seasons, to notice the tremendous quantity in the market this winter. It looks as if they were being grown to an unlimited extent with perfect success.

Last winter many of the store windows were banked with *Primula obconica*; this season it is hardly ever seen. It never seemed to take such a strong hold in New York as elsewhere, though it had plenty of advocates. Of course it is a dainty little thing, but when grown in a spindling fashion—which was very often the case—it was emphatically weedy, unless massed together so that individual plants did not show. A house filled with it, covered with bloom, was really a beautiful sight, but when the plants were separated, showing weak stems and small heads of bloom the charm was lost. It is very much the fashion to say that buyers here will not look at a flower unless it is as big and showy as a tiger

lily, but this is rather unjust. It is not very easy to introduce novelties, but if thorough tests show that they have commercial merit they are not long unrecognized. For example, the climbing asparagus; at first it was supposed that it never would take well because of the culinary suggestions of its name. Of course it has not swept snailish entirely out of use, or taken the place completely of any other green, but it is a good staple and is more likely to increase than decrease in favor.

Take another plant now coming into favor, the cyclamen. A few years ago cyclamen flowers were salable only to a very limited extent, partly because people were unfamiliar with them, and partly because really fine strains were little grown. Several growers imported fine varieties from Great Britain or the Continent, and now they have a regular place in the market. During this winter they have been quoted from \$1 to \$3 a hundred, and they certainly pay. They bloom profusely and are not troublesome. A marked improvement may be noted in the plants; the growers adopt the doctrine of the survival of the fittest, some of the finest flowers being pure dead white or deep crimson. The florists like them to use with orchid flowers, one decorator of excellent taste declaring them to be the only other flowers one could mix with this class, and unbotan-

ical flower buyers often ask if the cyclamen is not an orchid.

The annual dinner of the New York Florists' Club was set for January 18, but the lamented death of Peter Henderson would naturally disincite his friends for any social amusement. Like many others, he had recovered, as was supposed, from the influenza, going out of doors and thus caused a relapse. The writer had occasion to visit his place on January 10, and then learned that he was in bed, but not regarded as seriously ill. His death occurred on January 17, just a month later than that of his old friend, John Henderson. His death will be a shock to many, for though approaching the allotted age of man, Mr. Henderson's fine and rugged physique gave one the impression that he had many years of usefulness yet before him. In Peter Henderson horticulture loses its nestor, and many among us will have reason to lament an upright, firm and faithful friend.

EMILY LOUISE TAPLIN.

The Pink Japan Anemone in the Garden.

Every garden lover knows and has the fine white Japan Anemone. We think its very popularity tends to drive out the older forms. On a pleasant autumn day in the kitchen garden flower borders at Mirehouse, near Keswick, we were pleased to see the fine effect of bold and picturesque masses of the old pink form. It is a precious plant, as well worthy of a place as the white form, and has all the best qualities of a true hardy perennial. Our engraving is from a photograph kindly sent by Lady Jane Spedding.—*London Garden*

Notes From Boston.

The Florists' Convention to be held at Boston next August promises to be the most interesting and important meeting yet held by the society. The Gardeners' and Florists' Club of Boston and the Mass. Hort. Society are determined to make it so, and they have the material and the convenience to accomplish this end, and the whole-souled fellowship to render every stranger welcome and happy. Boston within and without is a city of gardens, and fine gardening is said to be better done, as a rule, around Boston than in any other city of our country. Certain it is that some of the oldest and grandest gardens in the land are in the vicinity of the Hub, and its magnificent private collections of orchids and other greenhouse plants are proverbial everywhere. The Botanic Garden at Cambridge, about five miles from the meeting hall, contains a very large collection of hardy herbaceous plants, and between one and two miles farther on is Arlington, the great seat of truck gardening. The Arnold Arboretum, about four miles on the other side of Boston, contains a larger collection of hardy trees and shrubs than can be found in any other arboretum in the world. And there are the famous garden cemeteries, Mount Auburn and Forest Hills, and all within six miles of the center of Boston.

In the florists' windows apart from roses, carnations, hyacinths, violets and the general run of seasonable flowers I noticed a good many orchid blooms in one Tremont street store and some bunches of purple lilac, English wild yellow primroses in bunches of about a dozen with a few leaves around them, scarlet nasturtiums bunched up in the same way, some spikes of *Eucharis Amazonica*, and in one (Doyle's) window quite a display of *Senecio Petasites* whose

ample panicles of yellow flowers had a very distinct and telling effect. This *senecio* is a very vigorous, tender perennial, not infrequent in botanic gardens and large private collections, but I shouldn't think quite good enough for general cultivation by commercial florists.

The bouquet of flowers that ornamented the florists' banquet table in front of President Jordan at Boston the other day was both rare and novel. It was made up of well flowered sprays of *Pyrus baccata floribunda*, white racemes of *Cassandra calyculata*, delicious bunches of mayflower (*Epigaea repens*) and charming little bluffs (*Houstonia coccinea*). A massive basket near by was made up with camellia blossoms cut with long leafy stems, topped with a crown of poinsettia and trimmed around the base with acacia, epacris and ferns.

In the corners and niches of the dining hall both standard and pyramidal tall plants of sweet bay (*Laurus nobilis*) were appropriately used. Their bright green fragrant foliage was a welcome help to the flowing palms. Mr. Becker, of Cambridge, had imported these bays from Europe last summer, and he tells me they didn't suffer any injury on account of the journey. He grows all his decorating plants in comparatively small pots for convenience in handling. W. F.



Souvenir de Wootton.

In response to your query as to how the "Wootton" rose is doing with us, we say, that it has been somewhat of a disappointment; we have had plenty of flowers during November and December, but they were very much inferior to Bennett and brought about only half the price. They are improving somewhat now, but it is not a first-class rose. We shall grow a limited quantity of it next year as it comes in useful as a cheap substitute for Bennett when the latter is scarce. ROBT. CRAIG.

—In reply to your query would say, that we bought 200 plants of the Wootton last March, gave them one of the best stands on the place; in September they were growing well and gave in early October a few fair blooms about as good as Papa Gontier. Since the bloom came off they got the black spot as bad as any rose in the whole list of hybrid teas, and to-day they have neither growth nor bloom. As a forcing rose it is a complete failure with us. Treated as a hybrid we think it will make a good pot rose for spring but nothing else.

B. P. CRITCHELL & Co., Cincinnati, Jan. 14.

—I read with surprise Mr. Whittle's comments on the Wootton rose. With me this rose is doing well, and I certainly grow roses under unfavorable conditions, as my rose house is small, heated by brick flues and is somewhat deficient in light. The Woottons, 200 in number, were planted from 3-inch pots the beginning of September, and though small plants they picked up considerably in a short time. The buds were pinched off until the begin-

ning of December and about the middle of December I cut the first buds, some as large as Bennetts, some the size of small American Beauties, and all well colored. The plants are entirely free from mildew and show very little black spot. If my other roses in the same house would do as well as the Woottons I would be well pleased. WM. H. WITTE.

Astoria, N. Y., Jan. 8.

—I received 100 plants of the Wootton about April 1 last and planted 50 on a bench in four inches of soil and 50 in a solid bed in another house in June. It is the most vigorous grower of any rose I ever handled, and more floriferous than any other I ever forced; it is deliciously fragrant, quite double—sometimes, free from mildew and black spot. But we want something else. The parties introducing it attribute to it all the good qualities desirable in a cut flower rose. "Color velvety red, equal to Jacqueminot." Of the thousands of buds I have cut, not one has had either the color or shape of the Jack. "It never makes imperfect buds." I have failed to get any perfect buds, although I have cut off small buds by the hundred to give the remaining ones a better show. "It retains its color for a long period." I rarely find two buds the same shade. They vary from a Hermosa pink to the color of a faded Bennett. True a bud will occasionally promise to come out a rather bright red, but by the time it is fit to cut it fades to a pinkish shade. This is my experience. I may not know how to grow them. Other parties may do better—hope they do. Would it not be the proper thing for the introducers to give us in detail the method by which they produce such magnificent buds.

Lancaster, Pa. GEO. W. SCHROYER.

—Regarding the Wootton will say: We have one hundred plants of this variety now blooming in our houses, and thus far we can certainly testify it is all that has been claimed for it; our plants were not planted until October, were very small, from 2-inch pots, and yet some of the roses produced rival the American Beauty in size and color, as you will see by samples sent. It is never out of bloom and of a strong healthy habit, and we are so much pleased with it that we will plant largely of them next season.

St. Paul, Jan. 22. L. L. MAY & Co.

[The roses sent were very fair blooms, though in quality considerably below those sent us by the introducer. They were terribly short of rivaling American Beauty, however, and from the comparison made we are forced to the conclusion that American Beauty does not do as well in St. Paul as at most other points. —Ed.]

—While the Wootton, with us, has not come up to what was claimed for it, yet it has been reasonably satisfactory. The first of the season we were troubled with a great many buds coming off color and malformed, but lately it has shown improvement in that respect, though it has plenty of black spot.

H. B. BEATTY,

Secretary Oakwood Rose Gardens. Oil City, Pa., Jan. 21.

—I think Wootton was at first much overrated and is now much underrated. It is extremely vigorous and has no blind shoots; the flowers are borne on long stems with very handsome foliage. On the other hand it seems to be the general experience that more than 50 per cent of the buds are either small or defective. But I have had enough good salable buds to make me consider it a profitable rose

to grow and I mean to grow it in larger quantity next winter.

JAS. D. RAYNOLDS.

Riverside, Ill., Jan. 23.

—Am disappointed in the Wootton. Chestnut Hill, Pa. EDWIN LONSDALE.

—The Wootton has not been thoroughly tried here yet, but at say Perle prices I think we can make a good market for it. Mr. Geo. Parker, who grows it here, is very much pleased with it.

Boston, Mass. W. J. STEWART.

—With me the Souvenir de Wootton is very free blooming and produces some very nice flowers. But for the New York market it does not take well; its shape seems to be the principal objection. But for the florist using his own flowers, and requiring a red rose, this variety will prove very valuable as it is one of the best constituted roses we have, and is exceedingly free; but to get good flowers it must be constantly disbudded, leaving one bud to each shoot; and if treated so fine buds with good long stems can be had. Another good feature of this rose is its fine foliage and beautiful fragrance.

Summit, N. J. J. N. MAY.

—In regard to Woottons, we hardly feel like giving an opinion. The general season has been so unfavorable for roses that they have hardly had a fair chance. The foliage is strong and rapid in growth, but buds are few and not very large. A few plants in pots have done better than those in benches. ELGIN ROSE CO.

Elgin, Ill.

The Best Six Roses.

In reply to W. C., page 231, the selection must of course depend somewhat upon circumstances. If they are wanted for local trade in a small town where cheap flowers only are wanted then I would advise the following: Bon Silene, Marquis de Vivers, Papa Gontier, Niphetos, Perle des Jardins and Souvenir de Wootton. But if the flowers are wanted to compete for good prices, or in other words, if really choice flowers are wanted then I would say: The Bride, C. Mermet, Mme. Hoste, W. F. Bennett, Mme. Watteville and Duchess of Albany, to which should be added for a place of any size, La France, Mme. Cusin and Sunset. This will give the grower a good variety of color and all are good roses.

There appears to be some difficulty with some growers in getting some of the above varieties in the best condition. Papa Gontier, to get it fine, should be grown in a somewhat cooler temperature than most of the others; Bennett on the other hand will do better in a slightly warmer temperature. Mme. Cusin and Mme. de Watteville should remain on the bushes till nearly wide open, then if cut and placed in water in a cool cellar for a few hours they are very beautiful and always meet with ready sale. Bennett should also be allowed to get nearly wide open before it is cut, particularly in cold weather. J. N. MAY.

The New Climbing Niphetos.

This is undoubtedly one of the finest roses of recent introduction. We procured it from England last June in the shape of an unripened cane without a leaf; however they were potted and treated carefully for about six weeks when they made a few leaves and were then transplanted into a solid bed at the warmest end of one of our rose houses. To our surprise they started to throw up



GLADIOLUS "SNOW WHITE"

thick shoots from the bottom and grew rapidly to a height of seven or eight feet, where they finished their growth by forming a cluster of from five to six buds, showing the habit of a true climbing rose. After these were cut off they started at every eye down the canes and threw out fine stems about 18 inches long at the end of every one being a bud. The flowers are large and of good form and substance, the foliage is exquisite, being of a very dark green color and large. The above description shows its great vigor, they have been treated with a moderate supply of water and a day temperature of from 65° to 70° with nights 60°.

SALTER BROS.

Rochester, N. Y.

Roses in Solid Beds.

The best Mermets that come into the Chicago market are grown by George Klehm at Arlington Heights, and they are grown in solid beds, in fact many of his methods vary considerably from those of most other successful growers. In the center bed of one of his houses are a lot of Mermets, now four years old, from which he is cutting great quantities of magnificent blooms of great substance

and beautiful color. On the surface of this solid bed is a heavy mulch of cow manure, but he rarely syringes and the bed has not been watered since started last October. He thinks that syringing is apt to injure the flowers. They are grown cool and no red spider was present. There are traces of mildew and the foliage frequently has a rather rough appearance, but the blooms are there, lots of them, and of unexcelled quality. The soil is rather heavy but not stiff. The blooms have so much substance that they last in good condition a remarkably long time after being cut.

Albany and Hoste.

Duchess of Albany I regard as one of the best roses introduced for several years, and it must become a general favorite in the very near future. It requires the same treatment as La France, from which it is very distinct in color.

Mme. Hoste is also a real acquisition. When first introduced the general opinion was that it was not decided enough in color to make it popular, but at this writing it is very popular in the New York market and is steadily growing in favor. It is a good grower and very free

flowering. At its best it is a clear canary yellow of good size and shape, and is a good companion for Bride, Bennett, Mermet, etc. in a general way.

J. N. MAY.

Albany and Hoste.

Duchess of Albany is a superb rose, equal to La France in size, form and freedom of bloom and the color is much deeper. It must prove a general favorite.

Mme. Hoste is quite an acquisition. It is larger than Perle, of faultless form, the color is pleasing, the stems are strong and erect. It is the most profitable rose we have this year.

ROBT. CRAIG.

Philadelphia, Jan. 7.

THE METEOR.—L. L. May & Co., St. Paul, send us a few blooms of Meteor, which are admirably colored and of fair size. They say: "This has thus far proved one of the most profitable roses in our houses. It is not a cropper, sells itself, brings fancy prices and has proved with us to be of good habit and clean."

Gladiolus Snow White.

This variety which is soon to become so well known in the horticultural world through the very general announcement made in the 1890 catalogues, is without doubt one of the most valuable of its class ever sent out. While it has been shown at the meetings of the Massachusetts Hort. Society in former years, it was never brought to the attention of the trade so prominently as at the annual convention of the Society of American Florists in New York, August 1888; it there attracted universal attention and admiration; at that time more than a year still remained before the bulbs were to be offered to the trade. We understand that the bulb is not a difficult one to grow and increases quite rapidly. Herein lies much of its great value to the trade, for once thoroughly disseminated it will no doubt be largely propagated by many and the stock soon become as common, as it must be exceedingly useful. Messrs. Hallock & Son may well be credited with the introduction of a novelty of great value. It seems a matter of regret that the retail trade of America this season differ so widely in price of this specialty. We note a variation of 100 per cent in the price per dozen in different catalogues; certainly an unfortunate condition of affairs for those who have quoted them at the highest rates.

VAN LEEUWEN'S MIGNONETTE.—MR. A. Van Leeuwen, of Garfield, N. J., sends us a photograph of a mignonette which he has raised. He writes, "The color is pure white and the fragrance very strong. The peculiarity of the flower is that instead of forming the female part it would get a new cluster of the male part out of which the flower would continue branching into new clusters." And as it failed to ripen any seed he has had to perpetuate it from cuttings. He asks our opinion regarding its probable commercial value, also the advisability of naming it "Reseda monstrosa odorata." Any mignonette that has to be propagated continuously from cuttings can hardly appeal successfully to the general cultivator. Van Leeuwen's Mignonette would be a better name.

WHOLESALE GIVERS always refer to the advertising pages of THE FLORIST when they wish to purchase. Have your trade list there so that you may receive your share of the trade.



The Carnation Belt.

A recent trip through what is generally recognized as the carnation belt of Pennsylvania revealed some interesting and important features of that branch of horticultural industry. Theso-called belt is embraced in a circle of about ten miles in diameter, of which Kennett may be regarded as the center, with Avondale on one side and Unionville on the other taking opposite outside positions. Of course I do not pretend to be exact in the location of the points named, or their distances apart, but they are sufficiently so for the purposes of this sketch. And they are also sufficiently accurate to explode the belt theory as a myth, for I am thoroughly satisfied that there is nothing in the atmosphere of that particular section to exert a favorable influence over the carnation any more than in a thousand other similar sections in that and adjoining counties in Pennsylvania and other states; neither is there anything peculiar about the soil so far as I am able to detect, in that particular it is very similar in appearance to that surrounding Philadelphia and other parts of the state, with which I was familiar many years ago—a rather light calcareous soil containing a slight admixture of micaceous matter, being the predominant features of a large portion of that section of the state. With the above facts in view I have no hesitation in declaring the carnation belt a misnomer.

"But," say the readers of the *FLORIST*, "you must admit that the carnation is quite largely and successfully grown in that section, pray how do you account for that?" Well, I account for the successful carnation culture in that particular section in this way: The industry is in the hands of young, energetic and persevering men, who take a pride in and devote their whole time and energies to their business. This is the grand secret, the same as in every other profession, calling, or walk in life. When men are determined to excel in any particular calling their efforts are generally crowned with success.

Mr. Charles T. Starr, of Avondale, is the veteran pioneer of the business in that section, and though still comparatively a young man, Mr. Starr has met with great success in carnation culture. This is the home of some very fine sorts, notably Century, Dawn, and also the carnation of all carnations, Buttercup, as well as numerous others long since familiar to the trade. Mr. Starr has also some very promising seedlings which we shall probably hear from in the near future, among which may be named Golden Gate, a deep, rich, bright yellow, a very promising variety, also Christmas, now being distributed as a rival to Grace Wilder. Mr. Starr's place is a veritable beauty spot situated about one mile from Avondale station, in the midst of a magnificent rolling country, and in spring and summer must be a perfect paradise.

Mr. Wm. Swayne, whose place is in the town of Kennett, is a young man full of vim and perseverance who has already met with marked success as a cultivator in this line. His specialties are the new white sorts Lamborn and Wm. Swayne,

which have attained great popularity as improvements over older sorts, and the dark crimson variety, Pride of Kennett, which besides its color has a rich perfume to recommend it.

Mr. Edward Swayne, another cultivator of the carnation, is also a resident of the same town. Mr. Joseph Renard occupies the place long ago established at Unionville by Thos. F. Seal, four and a half miles away from Kennett. Mr. Shelmire, another ambitious grower, is in the town of Avondale, while Mr. Chambers, whose place is between Avondale and Kennett, as well as being a successful grower is the inventor of an ingenious contrivance for ventilating greenhouses, which we shall doubtless hear of in the future. Avondale and Kennett are both situated on the Baltimore Central railroad, and Avondale being the farthest is about thirty-eight miles from Philadelphia.

H. E. CHITTY.

Paterson, N. J., Jan. 17.

Don't Believe it is the Twitter.

In reply to Mr. Chitty's article in January 15 issue of the *AM. FLORIST* on the cause of the shoots of my carnations twisting or curling as you may call it, I did not state my idea as to the cause. I thought I would wait and see what others would say about it. I have made a pretty thorough examination of them and I don't think the carnation twitter has anything to do with it.

As stated before my plants are grown in solid beds, the sub-soil of which is a heavy clay, which keeps the soil so wet that they can not be watered at all. There are other varieties in the same house side by side with the Garfield which are not affected. I believe the cause is cold wet feet. I believe if the beds were raised up so as to give drainage that the affliction would be a matter of second thought.

Mr. Chitty speaks of green manures as having more to do with it than anything else. I would say that the manure used was well rotted cow manure and ground bone.

G. LESTER HOLLS.

Seedling Carnations.

Mr. E. B. Jennings, Southport, Conn., sends us specimen blooms of five seedling carnations from seed of his own growing.

Snow Bird, a large white bloom is a grand flower with good stems and solid calyx, and strongly fragrant—the fragrance being very strong even after the long shipment by mail, and the flowers arrived in excellent condition. We are very favorably impressed with the flowers of this variety sent us.

None of the other flowers sent show any improvement over existing sorts.

Carnation Bertha Soper.

A box of blooms and a specimen plant of this carnation from Mr. J. J. Soper, Rockford, Ill., the introducer, were worthy of all praise. The color is a very taking shade of salmon pink, flowers of good size, uniformly sound calyx and on fine long stems. The plant seen was a splendid specimen of vigorous, sturdy growth, and well covered with bloom, and Mr. Soper states that it has been a most profitable thing with him.

He believes it to be a seedling, but can not positively say as to this. Some four years ago he was presented with a few cuttings by a lady who had it as house plant, and he grew his stock from these

cuttings. After its value was noted he made inquiries as to where the lady obtained the plant and was informed that it had been grown in her neighborhood for many years, so long that it could not be remembered who had it first. None of the florists to whom it has been shown could name it. We are inclined to the belief, however, that it is some good old sort, in which merit as a forcing variety had not been before noted, but as nobody else seems to have it, and its name—if it had one—has been lost to us, probably Mr. Soper is warranted in giving it a name.

Best Six Carnations for Beginner.

W. C. in the January 1 issue of the *FLORIST* asks some one to name the best six cut flower carnations for a beginner. That is a difficult question to answer, for as we all know different varieties vary in the different localities and under the different treatment they receive from various growers.

I would suggest that W. C. try at least one dozen varieties and after a thorough trial he will know better than any one can tell him which will do best in his peculiar locality and under the treatment he is able to give them.

Our experience in flowering over ninety varieties this year and the reports that reach us from different sections of the country show the following varieties to be giving general satisfaction.

L. L. Lamborn, dwarf habit, producing very large pure white blossoms and very early.

Silver Spray, also early, white and after the first few pickings producing almost exclusively long stemmed blooms.

Hinze's White, though one of the older varieties, is still to the front and the creamy color the blooms sometimes take on is no detriment.

Snowball is the counterpart of Hinze's White, except that it is a pure white.

Grace Wilder, a favorite pink shade and where it succeeds well the best of its color, and though not so generally successful is much sought for and worthy of a trial.

Beauty of Oxford, the color of Grace Wilder at its best, and we think will rival that variety.

Tidal Wave, the rich glowing pink introduced last year, is very fragrant, strong and productive.

For scarlet, Florence and E. G. Hill will give different shades, both perfect in their kind, vigorous habit, very productive and early bloomers.

For light canary or cream, Starlight and for deep, clear yellow, Jaquire, both new and giving good satisfaction.

In deep crimson, Pride of Kennett is dwarf, early and productive.

Emperor of Morocco is equally early and productive, but taller and having many long stemmed blossoms.

We have named only varieties giving solid colors, as they are generally preferred for florists' use.

JAS. G. HANCOCK.

Grand Haven, Mich., Jan. 8.

Propagating from Plants which have been Diseased.

Mr. John Curwen, Jr., of Villa Nova, Pa., presents for our consideration a somewhat serious question on the advisability of propagating from diseased carnations. This is a subject not at all pleasant to contemplate, as the bare thought that disease may become prevalent with this important plant is at once dismal and discouraging. But as far as

my observation goes, where plants have grown away from the disease and are presenting the appearance of perfect health, I can see no reason why cuttings may not be taken without risk of perpetuating the trouble. Violets are so propagated and the disease now showing itself among carnations seems analogous to the violet disease, and if it should ultimately so prove, I have no doubt that the methods they have devised to obviate the difficulty the same as in case of the violets, which are as abundant on the market as ever, and successful growers only realize about the same price for their product as when there was no disease. I am inclined to take a hopeful view of the matter, and would advise Mr. Curven to propagate from his carnations, especially as they appear from his description of having grown away from the disease, and now so far as the new growth is concerned are perfectly healthy. Our experience of the coming season will probably increase our knowledge of this subject. CHITTY.

Cut Worms Among Carnations.

Mr. H. Tong, of Erie, Pa., writes an interesting letter descriptive of the depredations of his cut worms of which he also sends samples. Mr. Tong may rest assured that they are the simon pure article, and identical with the New Jersey form of that pest, which is the dread of farmers and truck growers in this and adjoining counties. With the exception however that here they generally content themselves with cutting off such plants as cabbage, tomato, cauliflower, lettuce, beans, etc. at or near the ground surface. As remedies would ashes, slug shot and lime are used with more or less effect. But in Mr. Tong's case where they appear to climb into his carnation plants for the purpose of attacking the flowers I would suggest that he use every effort to catch them by hand and destroy them. An occasional dressing of either of the above mentioned remedies may also help make the feeding process distasteful to them; the same may be also effective if mixed with the soil. The baking process mentioned by Mr. Tong would doubtless result in destroying all traces of insect life, but the same process would also result in destroying the vegetable fibre of the soil, which most of us regard as an important factor in carnation culture. CHITTY.

CARNATION LIZZIE MCGOWAN.—Mr. John McGowan, the introducer of this carnation, has decided not to send it out for another year.

Banquet at New York.

The third annual dinner of the New York Florist Club was given at Morillo's January 19. The death of Peter Henderson was a sad damper on the festivities, which would have been postponed but that arrangements had been carried so far as to render this impossible. Mr. Andrew Cowan opened with some touching words in eulogy of his departed friend whose memory was then drunk, standing and in silence.

President J. H. Taylor sat at the head of the table and presided with his usual grace, while W. S. Allen as master of ceremonies skirmished around so industriously as to quite forget the wants of his own inner man.

Several members of the executive committee S. A. F. were present as guests of the club, and all testified to their hearty appreciation of the generous hospitality of their reception and their admiration of

the great beauty of the decorations. Hereas at Boston the table was loaded with fine flowers, contributed and arranged by members of the club who had spared neither time nor money to honor the occasion with an adequate display of their art.

People have been heard to scoff at the idea that intimate companionship with flowers has necessarily a refining and elevating influence and it might well be supposed that men who have been handling flowers all day and every day as simple merchandise or raw material should lose the faculty of regarding them from any other standpoint. Yet in fact we nowhere see more lavish and tasteful floral displays than at florists' social gatherings and certainly do these displays meet nowhere with more enthusiastic and discriminating admiration.

These annual banquets must do much to foster and cement good fellowship among members of the club, and it is a feature worthy of imitation by every florist club in the land. R.

WE WILL circulate your spring trade list to every wholesale buyer in America for less than the postage alone would cost you.

SITUATIONS, WANTS, FOR SALE.

Advertisements under this head will be inserted at the rate of 10 cents a line (seven words) each insertion. Cash must accompany order. Plant ads. not admitted under this head.

SITUATION WANTED.—As florist and gardener, by a competent man. Address G. ARDREY, Foughkeepsie, N. Y.

SITUATION WANTED.—Married man wishes for S. response in position; good grower of cut flowers, ferns, palms and general florist stock. Address C. L., care American Florist, Chicago.

SITUATION WANTED.—By a practical commercial S. gardener, German, single, who understands his business thoroughly. At Liberty 1st of Feb. or 1st of March. Address C. F. Box 319, Summit, N. J.

SITUATION WANTED.—By married man with no S. family, as a gardener, thoroughly versed in rose, cut flowers and bedding plants. References first-class. R. E. WAJNECUTH, box 6, Germantown, Ill.

SITUATION WANTED.—By a German gardener, S. and florist 5 years' experience in all branches; age 24. Best references. A place near Chicago preferred. Address ANDREW DOTTERWEICH, Durskirk, N. Y.

SITUATION WANTED.—By a sober and industrious S. and florist and gardener, between 30 and 40 years of age, month of May if possible—in the South. Best of references given. Address ANDREW SMITH, 225 Camp Street, New Orleans, La.

SITUATION WANTED.—By thoroughly experienced gardener and florist; single; age 25; German; in commercial or private place, for February 15 or March 1. Good reference. Address E. K., care American Florist, Chicago.

SITUATION WANTED.—By a first-class, experienced S. and florist, grower and packer of cut flowers, forcing bulbs, and a plantman of 12 years' experience; single man; reference. Address F. LORIST 23, care American Florist, Chicago.

SITUATION WANTED.—As foreman, private of S. commercial place, good rose grower and general greenhouse work; also understands landscape gardening. Can give best of reference. Address GARDNER, 1456 Marston St. Philadelphia, Pa.

SITUATION WANTED.—As florist and gardener on commercial or private place; has been 5 years in this country. Experience in propagation, growing of roses and plants in general. Please address L. KNAPP, Florist, Agr. College, Lansing, Mich.

SITUATION WANTED.—By an Englishman, as S. gardener and florist, thoroughly understands growing of rose and all kinds of cut flowers and plants; 20 years' experience; 11 years in last situation. Apply to EXETER MACHINE WORKS, Exeter, N. H.

SITUATION WANTED.—As foreman or assistant, S. in commercial or private place. Long experience in the leading nurseries of Germany, England, Belgium and the States. Best of references given as to ability and character. Would like to go to the Western States. Address CHARLES S., care Mr. Schweitzer, 34 E. 89th St., New York.

WANTED.—Florists and nurserymen's catalogues. Address AXEL C. ANDERSON, 103 3rd St., West, Duluth, Minn.

WANTED.—Practical young men accustomed to handle large quantities of general stock correctly and with lightning rapidity. Highest wages incessably indispensable. Address H. W. BUCKNER, Rockford, Ill.

WANTED.—Landscape and vegetable gardener; strong, intelligent, sober and energetic man. Address E. T. NOBLE, Nashville, Tenn.

WANTED.—A first-class florist to take charge of my two sets of greenhouses—three courses in Chippewa Falls and two in Neelakee—cities of 15,000 and 35,000 population. To a good, sober man I will give good wages, or an interest in the business. Address B. F. MILLARD, Chippewa Falls, Wis.

WANTED.—Unrooted cuttings of the following: 1200 double Geraniums in 12 kinds; 100 Rose Marie Lambert; 100 Geo. Jacquemont; 200 Dismore; 200 Meteor; 200 Sunset; 200 Perle des Bains; 200 Ivy Geraniums; 200 Abutilon Ellipse; 100 Chrysanthemum Mrs. Alpha; 100 Mrs. H. C. and C. G. Carles; 100 Aza Spaulding; 600 double Petunias in 12 kinds; 1200 Mumoth Verbena in 12 kinds. State price of each kind, rooted and unrooted; clean and healthy stock. Will take from one or more parties. Address P. J. S., care American Florist.

FOR SALE.—A \$5,000 business on easy terms. For particulars, address X, care American Florist.

FOR SALE.—One of the finest retail stores in the city of Chicago. Established 8 years. Excellent location, doing a fine business. Owner will leave the city. A high order of property for one who secure an established business at a reasonable price. Address J. L., care American Florist, Chicago.

FOR SALE.—Established 10 years. Seed store and 10 greenhouses (10,000 feet glass); heated by two boilers with steam. Large stock of plants. 5 houses devoted to rose culture, cutting the crop. Located in town of 350 inhabitants. Terms very easy—one-half of purchase money may remain. Satisfactory reasons for selling. Address LOCK BOX 25, Newtown P. O., Bucks Co., Pa.

FOR SALE OR RENT.—Florist establishment, 10,000 feet of glass, new houses; 100 miles from Philadelphia; 50,000 population; houses well stocked; cheap fuel. This is regarded by well known men in the trade as an exceptional opportunity for a man who understands the business. Every advantage given the right man. Other business demands immediate action. Address STRAUCH BROS., Pottsville, Pa.

FOR SALE.—In the city of Richmond, Va., adjoining the largest cemetery, four greenhouses, heated by steam, and stocked with winter flowering and spring bedding plants, for sale or rent on a lease of ground leased from the Cemetery Co., whose patronage goes to the benefit of the owner. Will be had by appointment Sept. of Cemetery. Will be cheap and use his influence for the purchaser. Address HOLLY, Carrier 7, Richmond, Va.

FOR SALE.—A well appointed wholesale florist establishment, consisting of 10,000 square ft. of ground, covered with glass, in the city of New York City. All cut flowers are sold on the premises to first-class retailers, and the demand is excellent supply. Excellent reasons given for selling. Price, \$20,000, one-third cash, balance on bond and mortgage. For particulars, address THOS. W. WEATHERED'S SONS, 46 and 48 Marion Street, New York City.

FOR SALE.—The leading florists business in Topeka, Kan., the Capital and largest city of the State. Demand for flowers is constantly increasing. Population doubled in the last five years. People cultured, and one of the finest cities in the West. Large shipping facilities. Best of references given. Best known florists business in the State. Business flourishing, and can be indefinitely developed by cash and energy. Best of references given. Will be had at a bargain for cash. Correspondence solicited. Address PAUL M. PIERSON & Co., Topeka, Kansas.

FOR SALE.

Several thousand Ficus elastica cuttings; also several very large Ficus trees, 12 to 15 feet high, with from 100 to 300 young trees. Address JOHN MILLER, Box K, Glenville, O.

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At Farwood, near Plainfield, N. J., on main line of N. Y. Central & H. R. R., a fine establishment consisting of about 5000 square feet of glass, heated by hot water apparatus; well stocked, and kept by men with about 13 acres of ground. Will sell cheap. For particulars address M. SCHMIDT, Farwood, N. J.

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Six acres or less, near Washington, D. C., 19,500 ft. of glass; excellent rose soil; seven minutes walk to railroad; street cars to house; established business summer. To a man in a position to take business this is a splendid opportunity. If not leased by May, the lease (10th and 15th June) will be for sale. No 61 steam pump and pipes (4-inch) will be for sale. Write for particulars, address BOX 53, IAKOMA PARK, DIST. OF COLUMBIA.

WANTED.

Assistant florist, one who understands rose growing and propagating, willing to do any kind of work. Temperate and honest. Permanent place for the right man. None but first-class man will be recommended. Apply. Wages \$40 per month first year.

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Add eight cents per hundred by mail.

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Splendid hardy Rhododendrons and Azaleas, full of bud; Japanese Maples, specimen Evergreens, and fine Trees; choice Shrubs, Roses, Vines and Fruits. Reliable stock in quantity at low prices. Also Native Shrubs and Herbaceous Plants. Extra English grown Grape Vines for Vineries.

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Madame Hoste,
Luciole,
Watteville,
And all the New
varieties of 1889.

OLDER VARIETIES:

Perle,
Puritan,
Bride,
Mermet,
La France,
Papa Gontier,
Cusin.

Our Rose Buds of WOOTTON and all above varieties are very good now.

Telephones 977 and 999. **C. STRAUSS & CO., WASHINGTON, D. C.**
P. O. Box 422.

ROSES.

Healthy young plants in 2 and 2½-in. pots.

Perle des Jardins,	La France,
Niphetos,	Catherine Mermet,
Sunset,	Safrano,
The Bride,	Papa Gontier,
Cornelia Cook,	Isabella Sprunt,
Bon Silene,	Ophelia,
Sombreuil,	Malmaison,
Souvenir d'un Ami,	Etoile de Lyon,
Mme. Scipion Cochet,	Duchess de Brahrant,
Arch Duke Charles,	Marie Guillot,
Marie van Houtte,	La Princess Vera,
Dr. Grill,	Mme. Welch,
Luciole,	Mme. Lambard,
Bosquet,	Musk Cluster,
Adam Tea,	Lawencia,
Duchess of Edinburgh,	Homor,
La Paquette,	Louis Philip,
Mme. Margottin,	Mlle. F. Kruger,
Honorable,	Edith Gifford,
Caroline Kuster,	Agripina,
Empress Eugenie, and other varieties.	

Price, \$4 per 100; \$35 per 1000.

Mme. Charles Wood, Magna Charta,
Paul Neyron, Queen of Bedders,
Gerard Des Boies, Jacqueminot, \$6 per 100.

Large plants of the above named varieties, \$15 to \$18 per 100. ADDRESS

A. LAUER,

1210 East Broadway, LOUISVILLE, KY.

ROSES.

A very large stock of young Roses of the leading bedding and forcing varieties. Also large stock of same in 5 and 6-inch pots.

The best and newest of CHRYSANTHEMUMS, CARNATIONS and general greenhouse stock.

Trade list mailed on application.

JACOB SCHULZ,

Louisville, Ky.

H. P. AND MOSS ROSES.

2 years, out of open ground, \$80.00 per 1000. Moss, \$10.00 per 100. Tea Roses, out of 3-inch pots, \$1.00 per 100.

If you need any stock, write for it. I will sell at your own prices, if not too low.

E. HIPPARD,
YOUNGSTOWN, OHIO.

Patentee of the best Ventilating Machinery.

CALIFORNIA'S NEW ROSE "RAINBOW."

The "RAINBOW" is *The coming Out Flower Rose*, it is not only handsome, but I do state that it will also be one of the paying roses, ranking with *La France* and *Perle des Jardins*.

MY REASONS FOR IT:

FIRST: Its freedom of bloom surpassing Papa Gontier, from which it is a sport, having the same erect habit of growth.

SECOND: Color of the flowers. Imagine a Papa Gontier of a lovely pink, blotched and streaked with the darkest Gontier color, at the same time only enough to add to its beauty, with base of petals of a rich amber.

THIRD: Have you any pink rose that is as free a grower, as free from disease, does as well as Gontier in a low temperature and produces its flowers on strong and erect stems?

The "RAINBOW" answers the above description, and has been recognized by the highest award at the recent Fall Exhibition of the California State Floral Society.

The judges in a Special Report to the Society stated as follows:

"We, the undersigned, your COMMITTEE ON AWARDS of Prizes for the Fall Exhibition of the California State Floral Society, have carefully examined the new rose "RAINBOW" brought out by John H. Sievers of San Francisco, Cal., and exhibited by him, and we find that this new rose is possessed of unusual merit as to color, form, substance, and its variegation—the latter being very distinct—and award to Mr. Sievers, for the same, the highest premium of the Society—a Silver Cup."

Signed,

JOHN GABLER,	B. M. PRATT,
WM. GAUGE,	CARL KRUGER,
CHS. SCHUMANN,	

The "RAINBOW" originated at my nurseries in the Spring of 1888, and will shortly be offered to the Trade.

Visitors from the East should not fail to call and see for themselves.

Any enquiries and communications in regard to the "RAINBOW" should be directed to my address.

JOHN H. SIEVERS, 25 Post Street,
SAN FRANCISCO, CAL.

THE AMERICAN FLORIST

Subscription \$1.00 a year. To Europe, \$1.50.

Advertisements, 10 Cents a Line, Apace;
Inch, \$1.40; Column, \$14.00.
Cash with Order.**No Special Position Guaranteed.**
Discounts, 3 months, 5 per cent; 6 months, 10 per cent; 12 months, 20 per cent.
No reduction made for large space.

The Advertising Department of the AMERICAN FLORIST is for Florists, Seedsmen, and dealers in wares pertaining to those lines ONLY. Please to remember it.

Orders for less than one-half inch space not accepted.

☛ Advertisements for February 15 issue must REACH US by noon, Feb. 10. Address

THE AMERICAN FLORIST CO., Chicago.

IMITATING NATURE.

It has been so frequently urged that we should "imitate nature" in our methods of culture, that it has practically been accepted as an axiom by many, possibly to their disadvantage, for while nature's ways should be fully considered, too close an imitation will prove disastrous in many cases. The plants we grow are not the plants which grow free in nature's garden, and the majority we must make more productive and have the product of better quality than is the case where only natural conditions govern. We undertake to remove by artificial means as many as possible of the unfavorable influences which affect the plant in nature and at the same time add to and strengthen those which are plainly beneficial. In doing this we are apt to go to extremes which result in conditions that prove detrimental, but excesses in one direction should not be followed by equally unwise excesses in another. Because we have overdone is no reason that we should starve.

The writer of an excellent article in the *Gardeners' Chronicle* of January 4, under the title of "A gardener's problem," recalls a principle long ago pointed out by Beau Herbert: "Plants," he says, "in many cases are peculiar to those soils which are not best for them, but where they can exist. Why do plants," he further asks, "which are found only in particular situations, improve under cultivation, and (as I believe to be the case) more so than those which are generally dispersed? and consequently, is the soil or subsoil on which alone certain plants are found in a wild state, necessary to them, or, at least, always best for them. I think the answer must be 'No,' to the latter question; and to the former question, 'Because their most dangerous rivals, which, in a wild state, would overpower them in richer soil are removed.'"

WHOLESALE CUT FLOWER PRICES.—We have received from a Philadelphia grower a lengthy communication complaining of the great variation between the wholesale prices we quote and the returns made by the commission dealer to whom he consigns his roses. Many of the points he asks information upon have been fully covered in these columns, which shows that he has not been a very close reader of the *FLORIST* in the past. However, if the facts are as stated in several cases described in his communication there can be little doubt that he has been dishonestly dealt with, and we should advise him to try another commission dealer. And if he can prove that less money has been returned than the amount received, less the usual commission, we urge upon him the necessity of bringing suit to recover, not so much for the sake of the

amount but as a matter of principle. For if there are dishonest commission dealers, the one who shall expose them will benefit the whole trade. The *FLORIST* stands ready to publish to the trade any one convicted of dishonest practices. Where quality of stock consigned to commission dealers is good, and demand is known to be brisk, there should be but little difference between the wholesale prices we quote—less the commission—and the rate of returns made to growers, but at other times the variation may be wide and still be legitimate, especially with the system which prevails among some commission men of reporting everything as sold when only a portion has really been disposed of, and the rate averaged for the entire lot. For instance, a dealer receives 500 roses of which he sells 300 at \$5 a hundred, while the remaining 200 are lost, and he reports sales of 500 roses at \$3 a hundred, total \$15, less commission. It amounts to the same thing, but does not give the true state of affairs. Again when the market is heavily loaded dealers do frequently make specially low prices for large lots in order to move them, and such cuts are not taken into consideration in our quotations.

WE HAVE RECEIVED a copy of the proceedings of the third annual convention of the Association of American Cemetery Superintendents held at Detroit last September, from Secretary A. H. Sargent, Akron, O. It contains 110 pages of essays on subjects of special interest to any one connected with a cemetery, with full discussions on same. An essay on "The ideal cemetery superintendent," by F. Higgins, "Woodmere," Detroit, presents a great many cold facts in a witty and interesting way. The successful florist must be competent to do almost anything, but the qualifications for an ideal cemetery superintendent place him considerably in the lead. Here are some named in the essay mentioned: "He must above all things be, first, a gentleman; second, a prevaricator of marked ability; third, a mule driver from way back, and fourth, a civil engineer and an artist. He must be a scientific farmer, thoroughly familiar with soils, drainage, grasses, fertilizers, etc. He must have a good general knowledge of flowers, and as to trees and shrubs, why he must know all about them. He must be a practical road builder and a stone mason of ability. He is asked at times to furnish estimates for the building and equipping of a street railway track, or the cost of a complete system of water works; and I have no doubt if he was asked to bridge the Atlantic Ocean he would make the attempt and quite likely succeed."

THE AGRICULTURAL grasses and forage plants of the United States and such foreign kinds as have been introduced, by Dr. Geo. Vasey, botanist; with an appendix on the chemical composition of grasses, by Clifford Richardson, and a glossary of terms used in describing grasses. A new, revised and enlarged edition with 114 plates. Published by authority of the Secretary of Agriculture, has been received from Secretary of Agriculture, J. M. Rusk, Washington, D. C. The title sufficiently explains the scope of the work which contains 148 pages of letter press in addition to the 114 plates. To the student of grasses and forage plants it can not fail to be of very great value.

A WHOLE PAGE in the *FLORIST* will cost you only \$42 for one issue and in it you can send your spring trade list to every wholesale buyer in the United States and Canada. We can do you more good for

less money than a list printed and mailed by you. If your list will go in a space of one half page, it will cost you but \$21. We will print any number of extra impressions desired from the type after being set, at slight cost.

A SMALL trade list will go in space of one half page and cost you only \$21. Or in one column costing but \$14. This includes printing, addressing, postage and mailing to over 5,000 live buyers. Order space now.

Catalogues Received.

James Vick, seedsman, Rochester, N. Y., seeds and plants; W. C. Beckert, Allegheny, Pa., seeds; Park Nursery Co., Pasadena, Cal., plants; California Nursery Co., Niles, Cal., nursery stock; T. W. Wood & Sons, Richmond, Va., seeds and plants; McGregor Bros., Springfield, O., plants; Steele Bros. Co., Toronto, Ont., seeds; D. M. Ferry & Co., Detroit, Mich., seeds; Wm. Toole, Baraboo, Wis., pansies; R. & J. Farquhar & Co., Boston, seeds; V. H. Hallock & Son, Queens, N. Y., seasonal seeds for florists; Cole & Bro., Pella, Ia., seeds; T. H. Spaulding, Orange, N. J., chrysanthemums; Dingee & Conard Co., West Grove, Pa., roses, hardy plants, bulbs and seeds; Haage & Schmidt, Erfurt, Germany, seeds; same, plants; J. M. Howell, Dallas, Texas, seeds, plants and nursery stock; L. L. May & Co., St. Paul, plants and seeds; Luther Burbank, Santa Rosa, Cal., horticultural novelties; J. Seubinger, Oakland, Cal., seeds and plants.

Boston Notes.

Richard Oldrieve, florist, of Newton, died on December 28. He was one of the oldest established florists in Newton.

John Heron, well known in the florist business in Chelsea for the past 30 years, died on January 18, aged 66.

Heath has appeared in the flower stores in small quantities.

Ulrich Brunner has been a great favorite here this season among rose buyers.

Carnations never were so scarce as at present. This is true of all colors, but especially of white, and the prices hold at the highest mark.

One cause of the scarcity of white carnations, and of all white flowers generally, is doubtless the unhealthy season, and consequent demand for funeral flowers. This particular branch of the florist trade is unprecedentedly brisk.

Once upon a time, it is said, some one interrupted a church service with the announcement that John Smith's house was afire, and instantly nearly one half of the congregation ran out in great alarm. A similar result seems to have followed the reference in these notes two weeks ago to a stolen budding knife. "Did you mean anything personal about me?" How would it do to hang the budding knives to an electric light wire when not in use?

Geo. W. Loring and Henry Cartwright have formed a co-partnership under the style of Loring & Co., and will engage in the florist business in the store under the Tremont House, formerly occupied by Bunker & Co.

W. J. S.

C. STRAUSS & CO.

Telephones 977 and 999.

WASHINGTON, D. C.**ROSE BUOS IN ANY QUANTITY SHIPPED
ON TELEGRAPHIC ORDERS.**

See our Large Advertisement on page 283.

THOS. YOUNG, JR., WHOLESALE FLORIST

20 West 24th Street,

NEW YORK.

LILY OF THE VALLEY

And the Choicest ROSES for the
fall and winter season.

W. S. ALLEN,

WHOLESALE DEALER IN CUT FLOWERS,

36 EAST 23rd STREET, NEW YORK.

ESTABLISHED 1877.

Price List sent upon application.

W. F. SHERIDAN,

Wholesale and Commission Dealer in

CUT FLOWERS,

No. 50 W. 30TH ST., NEW YORK

Orders to be shipped will receive prompt attention.

EDIYARD C. HORAN,

WHOLESALE FLORIST,

36 WEST 29TH STREET,

The Bride, Mornet,
and Am. Beauties,
SPECIALTIES. NEW YORK.

ROSS & MILLANG,

WHOLESALE FLORISTS,

No. 1168 Broadway,

Bet. 27th & 28th Sts., NEW YORK

HAMMOND & HUNTER,

WHOLESALE DEALERS IN

CUT FLOWERS,

51 West 30th St., NEW YORK.

LaRoche & Stahl,

Florists & Commission Merchants

—OF—

CUT FLOWERS.

1237 Chestnut Street, - PHILADELPHIA.

Consignments Solicited. Special attention paid to shipping. Mention AMERICAN FLORIST.

CHAS. E. PENNOCK,

WHOLESALE FLORIST

38 So. 16th Street, Philadelphia, Pa.

N. F. MCCARTHY & CO.

WHOLESALE FLORISTS

AND JOBBERS IN FLORISTS' SUPPLIES,

1 Music Hall Place, BOSTON, MASS.

Also entrance from Hamilton Place

through Music Hall.

We keep a large supply of Fancies and Carnations
always on hand. Return telegrams sent
immediately when unable to fill orders.

AUCTION SALES OF PLANTS SPRING AND FALL
Mention American Florist.

©Wholesale Market.

Cut Flowers.

Roses, Teas.....	BOSTON, Jan. 25.	\$3.00 @ \$5.00
" Parle, Sunset.....		8.00 @ 12.00
" Mornet, Bride.....		10.00 @ 15.00
" Gontiers, Niphetos.....		5.00 @ 7.00
Carnations.....		2.00 @ 4.00
Valley.....		6.00
Viola.....		1.00
Tulips.....		1.00 @ 6.00
Hyacinths, Narcissus.....		4.00
Callas.....		2.00 @ 3.00
Bouvardia, Miconette.....		2.00 @ 3.00
Adiantum.....		1.50
Farleuse.....		15.00 @ 20.00
Smilax.....		50.00 @ 75.00
Asparagus plumosus.....		50.00 @ 75.00

PHILADELPHIA, Jan. 25.

Roses, Laizets, Laikas.....	5.00 @ 6.00
" Am. Beauty.....	25.00 @ 35.00
" La France.....	12.00 @ 18.00
" Mornets, Brides.....	10.00 @ 12.00
" Gullots.....	20.00
" Cusins, Wattervilles.....	8.00 @ 10.00
" Gontiers.....	8.00
" Bennetts.....	8.00 @ 10.00
" Parle, Niphetos.....	2.00 @ 3.00
Carnations, long.....	2.00 @ 2.50
Carnations, short.....	1.50 @ 2.00
Viola, double.....	2.00
Viola, single.....	2.00
Valley.....	5.00
Camellias.....	6.00 @ 8.00
Romans, narcissus.....	4.00
Miconette.....	1.00 @ 2.00
Parle, double.....	5.00 @ 8.00
Freezia.....	2.00
Bouvardia, long.....	1.50
Paniet.....	1.00
Tulips.....	5.00
Smilax.....	15.00 @ 20.00
Adiantum.....	1.00 @ 1.50

NEW YORK Jan. 25

Roses, Bon Silens.....	35.00 @ 45.00
" Gontiers, Sunsets.....	5.00 @ 6.00
" Parle, Niphetos.....	5.00 @ 6.00
" Mornets, Brides, Bennetts.....	10.00
" Cusins, Wattervilles.....	10.00
" Hyacinths.....	12.00
" Albany.....	10.00 @ 12.00
" Jacqu.....	25.00
" Hybrids.....	50.00 @ 75.00
Smilax.....	15.00 @ 20.00
Carnations, long.....	2.50 @ 3.00
Romans, Narcissus.....	4.00
Valley.....	4.00 @ 5.00
Viola.....	1.00 @ 1.25
Tulips.....	5.00
Harriet.....	20.00
Adiantum.....	1.50
Lilac, per bunch.....	1.50

CHICAGO, Jan. 27.

Roses, Parlas.....	8.00 @ 8.00
" Niphetos.....	6.00 @ 7.00
" Gontiers.....	7.00
" Bon Silens.....	7.00
" Mornets, La France.....	10.00 @ 12.00
" Brides.....	12.00
" Bennetts, Dukes.....	9.00 @ 10.00
" Am. Beauties.....	25.00 @ 40.00
Carnations, short.....	1.25 @ 2.00
Carnations, long.....	2.50
Smilax.....	12.50 @ 18.00
Asparagus tenuissimus.....	40.00 @ 50.00
Romans.....	10.00 @ 20.00
Narcissus, tulips.....	4.00 @ 5.00
Valley.....	5.00 @ 6.00
Viola.....	1.25 @ 1.50
Bouvardia.....	1.50 @ 2.00
Callas.....	15.00 @ 18.00
Camellias.....	5.00
Adiantum.....	1.00 @ 1.25

WM. J. STEWART,

Cut Flowers & Florists' Supplies

—WHOLESALE—

67 BROMFIELD ST., BOSTON, MASS.

GEO. MULLEN,

WHOLESALE FLORIST,

Florists' Supplies Always in Stock.

17 CHAPMAN PLACE,

(Off School St., near Parker House),

BOSTON, MASS.

Orders by Mail, Telegraph, Telephone or Express

promptly filled.

WELCH BROS.,

WHOLESALE FLORISTS,

165 Tremont Street, BOSTON, MASS.

We make a specialty of shipping choice Roses and
other Flowers, carefully packed, to all points in
Western and Eastern States.

Return Telegram is sent immediately when it
is impossible to fill your order.

CUT FLOWERS

The choicest Cut Flowers at lowest market rates
shipped C. O. D. Telephone connection. Use A. F.
Code when ordering by telegraph. For prices, etc.,
Address,

J. L. DILLON, BLOOMSBURG, PA.

HUNT & MARKURTH,

Successors to

VAUGHAN'S CUT FLOWER DEPT.

79 LAKE STREET, CHICAGO.

We are now located in our new store,
and ready to attend to the needs of Cut
Flower buyers in a satisfactory manner.

OPEN DAILY: { Week days till 9 P. M.
 { Sundays till 2 P. M.

KENNICOTT BROS., WHOLESALE FLORISTS,

27 Washington Street, CHICAGO.

We always have choice, Fresh Cut Flowers in season.
The best packers in the trade. Orders promptly
shipped. Store open until 11 P. M. Sundays until
2 P. M.

WIRE WORK A SPECIALTY.
Extra designs made to order. Write for price list.
Consignments Solicited, Telephone 465.

CHAS. H. FISK, Wholesale Florist

AND DEALER IN

FLORISTS' SUPPLIES,

116 Dearborn Street,

CHICAGO,

Store Open Day and Night.

I keep a full stock of
WIRE DESIGNS

of superior workmanship and at lowest prices. Extra
pieces of any description made to order on short-
notice. Send for Catalogue.

CUT ROSES AT WHOLESALE.

The only establishment in the west growing
Cut Roses exclusively.

CUT, PACKED AND SHIPPED THE SAME DAY.

Only handled once, then by experienced per-
sons. All packages delivered on trains, thus
enabling parties at a distance to get fresh Cut
Roses.

Orders by Mail or Telegraph promptly at-
tended to.

GARFIELD PARK ROSE CO.,

1688 Madison Street, CHICAGO, ILL.

O. W. FRESE, WHOLESALE DEALER IN

CUT FLOWERS

And Florists' Supplies.

89 Wabash Ave., CHICAGO.

JOHN M. HUDSON,

WHOLESALE

Commission Dealer in Cut Flowers,

1225 Market St., ST. LOUIS, MO.

Quick sales and prompt returns guaran-
teed. Consignments solicited.

CUT FLOWERS AND WIRE WORK AT WHOLESALE.

THE WISCONSIN FLOWER EXCHANGE,

133 Mason Street, MILWAUKEE, WIS.

The Seed Trade.

SEED TRADE ASSOCIATION.

H. W. JOHNSON, Philadelphia, president; ALBERT M. McCULLOUGH, Cincinnati, secretary and treasurer. The eighth annual meeting at Saratoga Springs, N. Y., June, 1890.

IT COMES HIGH.

The death of Mr. Henderson suggests again the old inquiry and adds an argument to the position we have long held; it is, that as trade is now conducted in this and perhaps other countries, the business man can be the business man only. In the struggle for supremacy now made there is neither time for recreation nor rest, none for art, science or current literature; hardly for the most commensal affairs. Mr. Henderson was pre-eminently a business man. Even with his books and contributions to the horticultural press, every line he wrote meant to him dollars and cents. Every day of his life and nearly every hour had its allotted labor, arranged for most economical devotion to business. Few were his seasons of leisure and few his opportunities for enjoyment, independent of his work, of his well-won fortune. With the competition of the present day he could not hold his own otherwise. He could not spare six months and scarcely sixty days without injurious results to his establishment. The daily grind of the great machine must be watched, its hopper must be fed and even Mr. Henderson was not and could not be above it.

Look at the record of that business house; Mr. James Reid, son-in-law and partner of Mr. Henderson, and for 10 years the managing brain of the seed department, which he almost created, was buried in 1887, at the age of 36. Mr. John Skinner, for five years superintendent and for 13 years connected with the house, was buried in 1885, at the age of 38. Mr. Alfred Henderson, still under 40 years, is quite broken down in health. Does not this show what it costs to stand at the top? We do not mention these facts as applicable to this firm alone. It is practically true of the largest firms in this active trade the country over. Is the game worth the candle? And must we die to live?

It is suspected that all of the onion seed sold this season will not be of 1889 crop.

HENRY A. SALZER who has been under an oculist's care for some weeks is now much improved.

BECHTERT's Chartier Radish becomes "American Knickerbocker" when seen in an English catalogue.

VISITED CHICAGO: Geo. S. Haskell, Chas. P. Brastan, Mr. Emerson, and others on January 27.

THE FIRM of Howard & Underhill seems to have dissolved. Mr. James H. Howard is out with business circulars on his own account.

L. L. MAY & Co.'s 104 page catalogue of "Northern Growth" seeds shows by its bright cover, rare plant and seed novelties, that a new "Northern light" blazes forth with more than usual brilliancy.

MR. HENRY VILMORIN, of the Paris seed house of Vilmorin, Andrieux & Co., has recently been decorated as officer of the Legion of Honor, and celebrated the occasion by a banquet at which 410 of the employees of the firm were present.

Nitrate of Soda.

In reply to W. S., on page 262 of the FLORIST of the 15th inst., I would say that I have used nitrate of soda on roses, carnations, chrysanthemums and all plants that I have, and found that it caused a quick and strong growth.

I used three tablespoonsful in a 10-quart watering can. It is better to put the nitrate of soda in the can first and pour the water on it. I used it once a week.

Germantown, Pa. J. A. B.

News Notes.

CINCINNATI.—Mr. Frank Huntsman has made an assignment.

ORDER NOW space in the AMERICAN FLORIST for your spring trade list.

CLEVELAND.—Holiday trade about 10 per cent larger than last year, and prices higher, supply short.

HAMILTON, ONT.—Holiday trade larger than last year with increased demand for decorative plants. Prices rather better than last year, supply short, quality very fair considering dull weather.

DENVER, COLO.—Holiday trade nearly double that of last year with marked increased demand for roses and chrysanthemums. Prices about same as last year, supply not quite equal to demand.

SAN FRANCISCO.—Holiday trade smaller than last year and prices lower, the supply exceeded demand. Quality of flowers was not equal to last year. Trade in Christmas greens was poor. Good prices would have been paid for chrysanthemums if they had not been spoiled by rain.

INDIANAPOLIS.—Charles Riman, in the florist business here for the last twenty-two years, died January 24, aged 56 years. He leaves a widow and several grown children. Mr. Riman was a member of the Society of American Florists, of the Society of Indiana Florists and of the local Florists' Club.

NEW YORK.—The fourth annual orchid show, given by Siebrecht & Wadley will open February 18 and will continue ten days. It is announced that space will be reserved for any one desiring to exhibit any new plant or flower of special merit, including orchids, and that all exhibitors will receive proper credit in the press.

COLUMBIA, Mo.—The U. S. Experiment Station at this point was seriously damaged by a cyclone which swept through the southeast part of the city January 13. The main building was unroofed and the greenhouses were almost entirely demolished. The loss is about \$2,000. The work of rebuilding will begin at once.

BUFFALO.—The Buffalo Florists' Club will give a spring show during the week beginning Monday March 24 next. A preliminary list of premium classes has been published, copies of which may be obtained from Danl B. Long, secretary, 457 Main Street, Buffalo, who will also supply any further information desired.

CINCINNATI.—The Florists' Society held their annual meeting and election on January 10. The following officers were elected for the ensuing year: President, C. L. Mitchell; 1st Vice-President, Albert McCullough; 2nd Vice-President, George Corbett; Secretary, W. C. Nolan; Treasurer, R. Witterstaetter; Executive Committee, B. P. Critchell, R. J. Murphy and H. L. Sunderbruch. The society then decided to give another chrysanthemum exhibition next November.

J. C. VAUGHAN,
CHICAGO.

OFFERS
FEB. 1:

ROSES—Dormant.

For February Potting and Spring Trade.
Per 100
H. P. own roots, 1 year, 12 to 18 in., assorted \$ 8.00
H. P. Budded, very strong, 2 to 3 ft. 15.00
MADAM PLANTIER, medium, 12 to 18 in. 8.00
" " strong, 2 to 3 feet. 12.00
PRAIRIE QUEEN, cut back to 18 inches. 12.00
MOSS BLANCHE MORIAU, the finest pure white moss, medium, 12 to 18 in. 15.00
MOSS, ASSORTED, 12 to 24 inches. 10.00
TREE ROSES, good heads, good roots, stems 5 to 6 ft. Finest stock in America. 50.00
HERMOSA, 8 to 15 inches, fine for potting. 5.00

DUCHESSE OF ALBANY, 2-inch. 15.00
C. SOUPERT, February 15th, 2-inch. 15.00
CARNATION, Tidal Wave.

HYDRANGEA P. GRANDIFLORA,
4 year plants, clean, straight, 3 to 4 feet, splendid stock. 12.00
2 year plants, 12 to 24 inches. 8.00
1 year plants, 4 to 6 inches. 4.00
RHODODENDRONS, imported plants, March 1st. Stocky, well furnished. 37.50

HARDY SHRUBS AND CLIMBERS.
DEUTZIA, for present potted, LILACS, SPIREAS, AMPLOPSIS VEITCHII, WEIGELIAS, HONEY-SUCKLES, Etc. Complete List and Low Prices.
DAHLIAS, See Catalogue.
CHINESE VIOLETS, 76 1/2 in. 60.
SPIREA AND OLEASTRA, 36.50 per 100.
LILY OF THE VALLEY, Pips and Clumps.
NARCISSUS, Poeticus, Maximus, Von Sion.

OUR BOOK FOR FLORISTS
SPRING 1890

It is now being mailed to all Florists.
It will pay you to get it.

WINTER BLOOMING
AZALEAS

BEAUTIFUL SHAPED PLANTS. ALL SIZES.

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Again if they become unclean, they are cleaned off
in less time. Taken all things in consideration,
they are a handsome and a good article, made in a
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Do It To-morrow.

Mr. Whittle in an article on nomenclature says "there has not been one response" to the invitation of the committee to assist in the work. A friend of the writer, a Brazilian, in speaking of his countrymen says: "They never do to-day what can be put off until to-morrow," and the American florist, Brazilian-like, never writes a letter to-day if he can postpone it until to-morrow, next week, or next year.

The writer of this article sympathizes with the committee on nomenclature for he, as secretary of the Florists' Hall Association, has had bushels of experience in that line. Among others he once wrote to Mr. Whittle himself, and that gentleman, like a true florist, never deigned to reply. Why the florists of this country are so slow to appreciate that they may benefit themselves and their fellows as well by writing an occasional response to an inquiry is a mystery. If some enterprising Yankee would invent a driblet that might on special occasions be used as a pen, perhaps the committee on nomenclature might receive a few replies from members of their craft when they ask for information.

JOHN G. ESLER.

THE READERS OF THE AMERICAN FLORIST will buy what stock they need this spring from the spring trade lists published in its columns.

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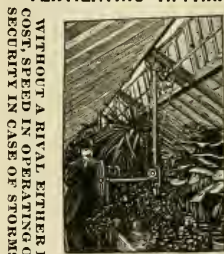
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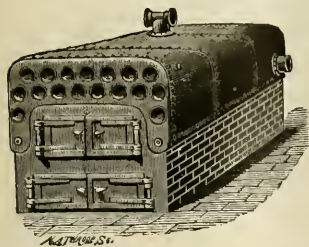
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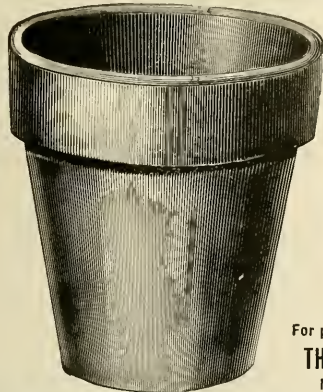
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Index to Advertisers.

Advertising Rates, etc.	254
Aldine Printing Wks.	294
Allen, W. S.	287
Amner, P. A. & Co.	296
Association Flora.	290
Bailer F. A.	294
Barry M.	281
Bayerdorfer H. & Co.	294
Berger, H. H. & Co.	292
Blackly Printing Co.	294
Blanc A.	270
Boehmner Louis.	292
Brackenridge & Co.	292
Braque L. B.	291
Bridgeman Alfred.	287
Brown R. S. & Son.	291
Burrow J. G.	291
Butz Paul & Son.	287
Caldwell Geo W.	287
Carmody J. D.	291
Chapout Harry.	294
Chitty H. E.	291
Cliffe D.	282
Copeland A. B.	287
Curwen John Jr.	286
Desmond Wm & Co.	288
Detroit Flower Pot Mfg.	294
DeVeer J. A.	288
Devine, Peter.	288
Diaz, John L. & Co.	295
Dillon, J. L.	285
Dunee & Condit Co.	294
Deer, H. A.	282
Elliott Wm & Sons.	294
Ellwanger & Barry.	293
Faber Bros.	293
Ferry D. M. & Co.	287
Field S. B.	287
Fisher Bros & Co.	286
Fisk Chas H.	286
Frese O W.	285
Fuchs Albert.	286
Fulweiler P. C.	285
Gardiner Jno & Co.	287
Garfield Park Rose Co.	285
Gibbs J. C.	283
Gibson W W Son.	281
Gayles.	281
Gregory James J. H.	287
Griffith, Jas.	294
Griffith, N. S. & Co.	292
Hales, H. W.	290
Hallock, V. H. & Son.	290
Hammond, Benj.	283
Hammond & Hunter.	283
Hancock George.	291
Henderson John Ch.	291
Henderson Peter & Co.	283
Herendeen Mfg. Co.	294
Herr, Albert M.	291
Hilfinger Bros.	294
Hippard E.	283
Hitchcock & Co.	294
Hoffner C. H.	294
Holla George.	290
Hooker, H. C.	294
Horan, Edw C.	285
Howard Arthur B.	288
Joyt R. D.	292
Hudson John M.	285
Jant & Markuth.	285
Jones E. G.	294
Jackson Geo & Co.	293
Jewett Z. K.	287
Jordan J. M.	287
Kelsey F. W.	287
Kennicut Bros.	295
King Jas.	288
Krauer N. & Son.	289
Krick, W. C.	294
Krombach Charles.	289
Langwith J.	287

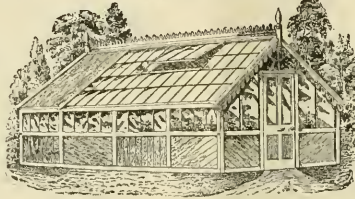
Larkin Isaac.	291
La Roche & Stahl.	285
Lauer A.	283
Lockland Lumber Co.	294
Lovett J. T. Co.	293
McCarthy N. F. & Co.	285
McFarland Horace.	294
McMahon Frank.	292
Marc Gabriel.	286
Mathews, Wm.	292
Mead Alex.	282
Meech F. J. & Son.	288
Meenan Thos & Son.	291
Merrick, A. T.	290
Mette Henry.	289
Michel Plant & Seed Co.	288
Miller, Geo. W.	285
Mullen Geo. B.	285
Miller John.	281
Moore Joseph B.	284
Nanz & Neuner.	292
National Hot Water Heater Co.	295
Nielson Hans.	291
Painor John & Son.	290
Pennock Chas E.	285
Peterson Swan.	292
Philip M.	288
Pierce Butler & Pierces.	288
Pike Co Nurseries.	290
Plenty, Josephus.	295
Quakers City Mch. Works.	288
Reed & Keller.	294
Renard Jos.	294
Richers F. A. & Sohne.	288
Rolker, A. & Sons.	289
Ross & Millard.	285
Rupp John F.	288
Saul John.	292
Schiller & Mailander.	291
Schultz Jacob.	283
Scollay, John A.	286
Seeger Bros.	286
Shaw Joseph.	286
Shelmire W. R.	291
Shepherd Mrs F. B.	287
Sheridan W. F.	285
Siebrecht & Wadley.	292
Sievers John H.	283
Sipple Doptile & Co.	294
Situations, Wants.	281
Smith David.	294
Smith Powell & Lamb.	293
Smith & Smith.	294
Super J. J.	294
Souper & Notting.	292
Spanning T. H.	289
Spencer, Wm. H.	289
Star Chas T.	291
Steel John Jr.	291
Stedens N.	291
Stewart, Wm J.	285
Storrs & Harrison Co.	291
Strauss C & Co.	283
Studer N.	292
Swayne Wm.	291
Syndicate of Growers.	280
Thomas J. P. & Son.	294
Thompson Mrs J. S. H.	287
Toole Wm.	293
Trischler M. & Son.	288
Turnley C. W.	292
Van der Schoot & Son.	293
Vaughan, J. D.	289
Weathered, Thos. W.	290
Welch Bros.	287
Whitlind Pottery.	295
Wilks S. Mfg Co.	295
Williams H. W. & Son.	294
Wisconsin Flower Ex.	285
Wood Bros.	289
Woodruff W. B.	288
Yon, Thos. Jr.	285
Zirngiebel D.	290

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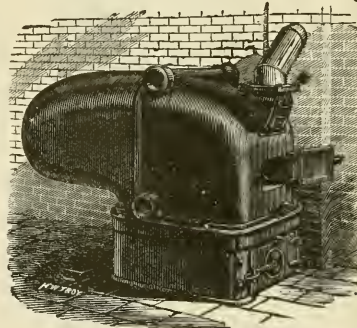


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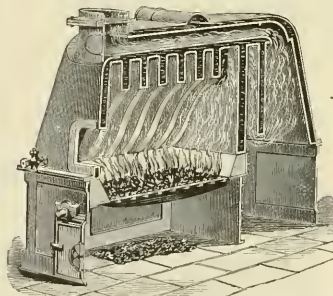


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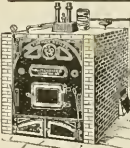
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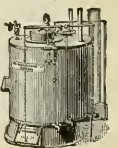
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Vol. V.

CHICAGO AND NEW YORK, FEBRUARY 15, 1890

No. 109.

THE AMERICAN FLORIST

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Entered as Second-Class Mail matter.

Published on the 1st and 15th of each month by

THE AMERICAN FLORIST COMPANY.

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Address all communications to

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SOCIETY OF AMERICAN FLORISTS.

J. M. JORDAN, St. Louis Mo., pres'dent; M. H. NORTON, Boston, Mass., vice president; WM. J. STEWART, 67 Bromfield St., Boston, Mass., secretary; M. A. HUNT, Terre Haute, Ind., treasurer. The sixth annual meeting at Boston, Mass., August, 19, 20, 21, 22, 1890.

CONTENTS.

New York notes and comments	297
Boston notes	298
Washington	298
Scientific education	298
Chrysanthemum exhibit (with illustration). . .	298
New varieties	299
Nomenclature	300
Chrysanthemums—seasonable notes	301
Chrysanthemum inodorum plenissimum (ill). . .	301
Burning sod	301
The yellow Ipomoea	301
Orchids—Oncidium splendens	302
Laelia Arnoldiana (with illustration)	302
Notes from the Bussey institute	302
Violet crops	303
Roses	304
Fuller's rose beetle (with figures)	304
A root collar (with illustration)	305
Asparagus tenuissimus	305
Notes from the Arnold Arboretum	306
How and why some men make money	306
Improvement in greenhouse flies (with fig). .	306
News notes	310
Scientific education for florists	310
Letter from Mrs. Henderson	310
Peter Henderson's will	310
Seed trade	312
From Canada	312
First gardening in Chicago	312
Slugs among violets	314
Kennedy for the twister	314
Leaky joints	314
The mild season	318
Cut worms	320
Nyack, N. Y.	322
"A kicker"	322

TWENTY-EIGHT PAGES THIS ISSUE.

THE NEW TRADE DIRECTORY was mailed on the 4th inst. to all who had ordered copies previous to that date.

OUR NEW TRADE DIRECTORY is now ready. It gives a complete and accurate list of the florists, nurserymen and seedsmen of the United States and Canada, designating the special branch of the trade each one is engaged in. Price \$2.

A WHOLE PAGE in the FLORIST will cost you only \$42 for one issue and in it you can send your spring trade list to every wholesale buyer in the United States and Canada. We can do you more good for less money than list printed and mailed by you. If your list will go in a space of one half page, it will cost you but \$21.

New York Notes and Comments.

Cleopatra—no relation to Mrs. J. Brown Potter—is a pretty good name for a new rose. It is one of Shepperton origin, a tea to be seen at J. N. May's. A long flower, a little like Mermet in shape, but rounder; the color a soft flesh pink. It has not been tested yet, so its capabilities are unknown, but it is certainly a pretty flower and a good size.

Another recent rose at Summit is Ernest Metz, described as a rival to the Mermet. Shape and size is quite suggestive of that flower, but it is different in color, being a clear shell pink. The queerest thing about this rose is the disparity between flowers and leaves. The leaflets are very small, not suggestive of a tea in appearance, and it looks rather absurd to see the contrast between the large flower and tiny foliage. This rose has not yet received a thorough test, so it is impossible to speak of its merits with authority.

Mr. May speaks with warm appreciation of Mme. Hoste, like all who have tried it around New York; it has done finely with him and flower buyers like it.

Wootton has certainly proved a great disappointment, not only in the growing, but in the selling. People in New York don't care for it, and don't want to buy it. The great defect to begin with is the shortness of petals—the color is all right, but it is flimsy and does not keep well. It is certainly hard to judge properly of a new rose; we always expect too many virtues to begin with, and then there is always the liability of defective treatment during the first season or two. But it is a pity to boom a new rose merely because it is pretty, when there are so many already which have prettiness and other virtues too. A new flower now must really "fill a long felt want," or it will pass into innocuous desuetude, to keep company with Her Majesty, Puritan and many another which were undoubtedly valuable under some conditions, but not for present circumstances in the trade.

Mr. May has a very richly colored form of Bennett, which may prove a distinct variation from the original form, just as the Duchess of Albany varies from La France. It is a very deep crimson, extremely velvety, suggestive in color and texture of Alfred de Rougemont or Prince Camille de Rohan. There is no reason why it should not prove a permanent variation, and a very handsome one.

A bed of Capucine seen at the same place was remarkable for its stiff, vigorous growth and long stems. It was well staked up, instead of being allowed to straggle in the drooping fashion usually seen, and this may have had a good deal to do with the upright tendency of the growth. It is a rose appreciated by many for its bright coppery color, but the bud is not large enough to suit the general taste, which runs in the direction of big flowers.

Julius Rochrs has been sending in his usual fine hybrids this winter; around the holidays these first class flowers brought \$1.25. During the last week in January hybrids ranged all the way from 25 cents to \$1. Mr. Rochrs has a fine lot of Ulrich Brunner, which seems the favorite among bright colored hybrids in New York.

At the Sanders orchid place at Summit Mr. Dimmock has the rare Laelia Pattinii alba in bloom. It is one of the white orchids which really is white; the adjective alba is very often tacked on a name when the plant has a merely partially white flower, but this Laelia is snowy. Some fine white lycopastes were seen at the same place; also very richly colored Cattleya Trianae. While noticing a good form of Oncidium splendens Mr. Dimmock spoke of its advantages over many of its family for cut bloom, as the entire spike usually opens within a week. Many oncidiums open so slowly that the lower blooms fade before the entire spike is opened.

The DeForest place at Summit seems to give an affirmative answer to the question whether it pays to grow orchids for cut flowers. There is a bewildering quantity of the plants to be seen, among them some very fine varieties. A great quantity of phalenopsis have been cut, these being favored for bridal bouquets. Cattleyas are grown in great profusion: one immense mass from this place has been attracting much admiration lately in Klunder's window. Fine spikes of Calanthe oculata gigantea formed another attractive sight; the calanthe is a good thing for cutting. At the same place was an unusually fine variety of Odontoglossum Harryanum; it was very large and very deeply colored.

Some roses are grown at Mr. DeForest's, but the orchid houses form the chief feature of the place, and it is quite remarkable to note the number satisfactory for cutting.

During the early part of February an orchid show will be held at the United States Nurseries, the entire place being decorated and arranged for exhibition, after the manner of previous shows. It is likely to be a most attractive show, judging from the interesting things now on the place.

Messrs. Siebrecht & Wadley will hold their fourth orchid show at the Eden Musee, beginning February 18 and lasting a week. A renewal of their former successes is anticipated; people look forward to seeing fine flowers and tasteful arrangements at their shows, and the expectation is not likely to be disappointed this year.

A very artistic arrangement in Thorley's window recently consisted of nothing but Roman hyacinths and acaenia; the gold and white flowers looked as if thrown down with apparent carelessness

which was the perfection of art, like a big trailing sheaf filling the window. It was daintily effective.

Many florists' windows are now arranged with potted ericas, covered with their pink bells; they are much admired when stood in a Leeds jar for room decoration.

Business through January has been really good; the flower crop has not been very large, as few growers are cutting to their full extent, but there has been little trouble in disposing of all the flowers that came in. Easter coming early this year gives the florists a better chance after Lent. EMILY LOUISE TAPLIN.

Boston Notes.

The cut flower trade in Boston has been brisk and well up to the average for the month of January. Prices of carnations and roses have kept steadily at good figures, and all kinds of "bulbous" flowers, especially those that are white, have sold exceedingly well. There are some very good Jacobs and Hybrids coming into the market now, but the prices on these rule low as compared with the prices of but a few years ago. Heath has begun to come in and is unusually good, the result in part of the favorable summer of 1889. Orchids seem to be more generally sought after than ever.

There have been some changes in the trade here recently, notably the relinquishing of their city store by Dee Bros., and the removal of N. S. Wax from his humble quarters on Park street to a little gem of a store on Winter street. Other changes are soon to occur if rumor is correct.

The Gardeners' and Florists' Club is thoroughly awake regarding the coming convention, particularly since the enthusiastic meeting here of the executive committee of the National Society. The Mass. Hort. Society is also quietly crystallizing plans for a superb exhibition next summer, which it is hoped will prove a great treat for the visitors.

The Boston brethren never allow business to engross them to such an extent as to neglect an opportunity for occasional social enjoyment and thoughtful provision for one another's comfort. One of the most enjoyable of their little excursions took place on Thursday evening, February 6, and took the form of a presentation to Mr. Jas. Rough at his residence, of a beautiful oak sideboard and an elegant easy chair. The occasion was a complete surprise to Mr. and Mrs. Rough, but they found eloquent words in which to express their thanks in response to the graceful presentation speech of Mr. Warren Ewell. There were about twenty prominent florists present who thoroughly appreciated the efforts of the orchestra and the caterer in their behalf. The sideboard was well stocked, i. e. at the time it was presented. But of course it needed just a slight replenishing after the boys had departed. W. J. S.

Washington.

The diplomats were out in all their glory the evening of January 21 at the dinner given by the President and Mrs. Harrison in their honor, and the East Room at the White House never looked lovelier than on this occasion. The decorators reached the height of floral art in the arrangement of the beautiful flowers and stately plants. The windows were filled in with tall palms and crotons. One mantel was banked with white azaleas and carnations, with a center-

piece of Marechal Niels and the whole filled in with sprays of hyacinths. The center figure in the right hand mantel was formed of brilliant Jacquemont roses and from each shelf hung a fringe of asparagus vines that fell over the brighter-leaved plants filling up the grates. At either end of the room was a huge mound of palms, rubber plants and poinsettias. The doorways were hung with strings of asparagus, looped back with garlands of flowers. The mirrors and chandeliers were draped with festoons of smilax, and when the brilliant light was thrown over all the effect was indescribably lovely.

In the Green Room there were jars of poinsettias and red tulips alternating on the mantels. The decorations in the Blue Room were more elaborate, and the windows were invisible behind the groups of large palms and vine hangings. On the mantels were primroses of every color, and mingled with them were delicate maidenhair ferns. The Red Room was touched up with jars of hyacinths on the mantels and pots of tulips in the windows.

The dining-room with its I-shaped table was a thing of beauty. In the decorations of the table the caterer and florist exhausted every detail of their arts, and produced a picture that is rarely seen. The centerpiece was a huge oblong mat of delicate orchids and mignonette. The foundation of mignonette was almost hidden under the lavish arrangement of orchids. At either end of the table was a hemisphere made of ivy leaves and carnations, the continents being outlined in flowers upon the green background. There were baskets of lily of the valley at the extreme side points of the table, and opposite these were baskets of Marechal Niels. On each plate lay the usual floral souvenirs. For the ladies there were bunches of brilliant orchids, looking like so many dainty butterflies, tied with white satin-edged corded ribbon. For the men there was a single orchid and fern for the button hole.

Scientific Education.

This has been talked about and written up considerably of late, and it is an excellent subject, which should be well considered by all, but it seems to me that few, so far, have entered into the facts of the case. We have already excellent schools, where a good general education can be obtained by all, independent of creed or nationality at a small cost individually. We had nothing of the sort in England when I was a boy, and when I began to learn the business at the age of 13, being taken from an excellent academy for that purpose, I was glad to buy all the books I could afford from my small pay, and employ all my leisure in studying what science I could in the small amount of time allowed. This was necessarily late at night, as we had to work long hours, including most of Sunday.

A youth in a public school, if he has ambition to pass a good examination, will have no time for such studies as botany, chemistry, geology, etc., which a florist should have some knowledge of because his numerous general studies will occupy him until bed time. These sciences appear in the public school course, but the knowledge gained is usually a mere smattering. Unless his friends can afford to give him a course at college he usually has to commence in some business at 14 or 15 to earn a portion of his living. If he has a few years at college it seldom improves his business qualities, that is if he has to start life and earn his own cap-

ital; he is much more likely to starve to death than a man who can shovel dirt or fire a locomotive.

As regards state assistance to found a scientific school and experimental garden it would be well for the supporters of this plan to read an article in a recent funny paper, in which a man of the present age is supposed to come back at Christmas, 1990, when the state has control of everything, down to the size and number of dolls to be given to the children. Of course this is very ridiculous, but scarcely more so than asking state aid for the purpose mentioned, which if granted would give all the cranks a precedent to ask aid for every kind of hobby. So long as there was any surplus in the treasury they would claim a share in the boodle, as well as the florists.

I give many of the supporters credit for their good intentions, but there is also a class of wind-bags who would claim and think they were worthy of filling all the paying places connected with such a project. None of the average legislators would support such a request for aid unless they saw a chance of sharing in its advantages. Mr. McGinty, who has district influence, would want places for his son, or a friend's son in any soft position there might be, while those for whom it was intended must be content with any trifle left after the politician's claims are filled.

I presume it is generally known that the National Botanic Garden would have no money voted, or would be cut down to such a small sum that it would be practically useless if the supply of cut flowers, etc. to the legislators' wives and friends was stopped. There were, or are (I presume it is not altered), houses for growing roses and other flowers for that purpose, which sounds queer for a so-called botanic garden. I do not blame the superintendent but the system, which I believe is carried out more or less in all the horticultural departments at Washington. I recollect the instance of one of our law makers, now dead, who had all his bedding plants, cut flowers and other things for decorating sent to his home, some 700 miles distant. The express companies would dead-head these things, and there being, no doubt, thousands of this kind of goods sent to various parts of the states, is it a wonder that the express companies charge double rates to florists for delivering plants, raise the rates for cut flowers and charge for returning empties? Florists have to help pay the tax to support a national garden, again for delivering the things grown there to the law makers, also in loss of business that might be had if there was no free department, and lastly in loss of custom through excessive express charges, which really come out of the florists' pocket, as his customers would buy more and oftener if the freight was reasonable.

If desirable, I may in a future article give a few notes on the working of Kew and Chiswick, which years ago I had the opportunities of learning, though I was never employed at either place.

Maywood, N. J. JAS. TAPLIN.

A Chrysanthemum Exhibit.

Our illustration is from a photograph showing a portion of the exhibit made by the National Chrysanthemum Society of England at the exhibition at the Royal Aquarium, Westminster, London, during the past chrysanthemum season. We are indebted to Mr. Wm. Mouttain, of the Royal Academy studios, London, for the photograph.



PART OF AN EXHIBIT BY THE NATIONAL CHRYSANTHEMUM SOCIETY OF ENGLAND AT THE ROYAL AQUARIUM

New Varieties.

BY A. E. WHITTLE.

In common with many other florists the writer is an enthusiastic admirer of enterprise, not only in all of life's pursuits, but especially so in the profession which is his means of livelihood, and the object of his ardent interest.

It is an undoubted fact that only by enterprise can any man hope to succeed. One who shows any lack of it is sure to be distanced by those whose efforts are characterized by energy and observation, put into judicious practice. And as we are all agreed that enterprise is the desideratum for every one it may not be amiss to inquire for a moment what enterprise means.

It must be generally conceded that enterprise can end in failure, for the word really means a bold attempt, and one may make many attempts, yet may also meet with repeated failures. For a man to carry his enterprise to a successful

conclusion he must combine other desirable qualities with his love of it, a judgment which will teach him only to undertake that which he feels he has the ability to perform.

There is an idea prevalent with some men that expenditure is enterprise. That he who spends lots of money and attempts many undertakings is the man to be styled enterprising. But unless this expenditure in business matters is calculated to bring an adequate return the enterprise is injudicious, and will soon bring the business to the verge of ruin. No man, in these days of excessive competition, can afford to be reckless in his expenditures. The expenditure of every cent must be watched, and only those expenses incurred which are absolutely necessary, or which promise to be a good investment, likely to return us with interest the money spent.

According to the words of Wm. Dallas, published in the *Florist* of January 1, the inference may be drawn that enterprise consists in the indiscriminate pur-

chase of new plants, for there he seems to make the statement that those who do so are more enterprising than those who are cautious in such expenditures.

From such a view the writer most emphatically dissents. Probably Mr. Dallas is such a man as his writing depicts. One who buys new plants, grows them, compares their various merits, for the benefit of his competitors. Thereby proving a benefactor to horticulture at large. If he finds such business methods pay it is right for him to pursue them. But many of us have neither the time nor the money to follow the course he so lucidly points out. We are in this business, not only because we love it, but essentially because we wish to make money; and to do so each and every one of us uses means according to the ability given. It may be that Mr. Dallas' way is more enterprising, and probably more remunerative than the one followed, but at present the conception is utterly at variance with any such theory. I am quite content to waive the role of public benefactor which

he so kindly suggests to me, and leave to Mr. Dallas, who recommends the part, all the honors likely to accrue from such a position.

It is safe to assume that there is no florist, unless taught by years of experience, who does not purchase more new varieties than the profits warrant, that are obtained from the propagation, cultivation and sale of these new varieties. A distinction must here be made between florists who do a catalogue business and those who grow for the sale of cut flowers. Men who catalogue the varieties they buy and who invariably print the raiser's, or some other highly colored description, can afford to purchase everything that is sent out, for they depend for their returns upon the young plants of these varieties that are sold; in very many cases quite extensively.

But it is to those of us not so situated that this criticism applies. Those of us who do no catalogue business—who sell no young plants other than of varieties generally known, can not afford to obtain a title of the new plants sent out. Such a proceeding is unwise in every respect. "Oh," but say some of our friends. "Here is room for enterprise. Such expenditure partakes of a speculation. Buy largely and you may reap largely." Very well. Those who wish to can, but I for one am willing to leave this expense to my more enterprising brethren.

A case or two in point. Will some florist kindly tell us what rose we should discard to make room for "Souvenir de Wootton." Here is a rose of which the most glowing descriptions are given. According to these descriptions we have at last the *ne plus ultra* of red roses. We have been waiting for this rose for years. It is just what we need, and therefore we will throw out all our other red roses and invest largely in "Souvenir de Wootton." Where is the florist depending entirely upon the sales of his cut roses for the success of his business who would not gladly expend \$100 to \$200 to procure a red rose of good color, form and substance and of constant free flowering quality. But shall we gain this red rose by purchasing "Souvenir de Wootton?"

Last year the chrysanthemum "Mrs. Andrew Carnegie" was offered to the trade at \$2 per plant. At such a price one might expect to obtain something wonderful in the way of chrysanthemums. But probably those who paid out any large amount for this chrysanthemum regret their enterprise, for it is doubtful if the sale of the flowers, or even the plants of this variety will ever repay those who invested in this purchase.

Again this year numbers of new chrysanthemums are offered for sale at \$1 for each plant. Are these all better than the best we now have? No one would pretend to say so. Are they all as good as the best we have? Again the answer must be "No." But we are told that it is enterprise to buy them all in order to find out for ourselves what are really good and what are nothing but rubbish. How such uneconomical proceedings can be recommended to the general florist as good business methods is a mystery. For there is no florist, unless he has a large catalogue trade, who can pay \$1 each for plants of chrysanthemums or roses and expect to make any money out of the transaction.

It need not be supposed that this is an attempt to condemn as foolish the purchase of new plants. Varieties of decided advance in merit are offered from year to year. But it is this idea that is wrong, that because a plant is new it must therefore be better than that which is old.

Probably three fourths of the new varieties of plants grown by florists for the cut flower trade are not in demand for more than a year or two. It is useless to trust to catalogue descriptions. They are too highly painted. If a new variety is good time soon establishes its value. The large growers soon know its merits, and propagate in such large quantities that the price is quickly placed within reach of all.

For the reasons above adduced the writer can not agree that it is judicious enterprise to purchase new plants indiscriminately, no matter how glowing may be the first praise. It is commonly the practice by the general florist to purchase a few of a new rose etc. at its first distribution, and expect that a stock can be raised from these few plants and money be saved by so doing. But it is never so. By the time the stocks raised the market is flooded with stock of this variety at a much reduced rate.

Neither can the merits of a rose be ascertained by growing one or two dozen plants. To treat a rose fairly it should have a bench all to itself. Therefore experience teaches that the majority of florists are not pecuniarily benefited by the purchase of new varieties until popular report establishes the merits of any variety.

Nomenclature.

A private and personal letter to the reader:

DEAR SIR.—You have doubtless read in the FLORIST sundry articles criticising the nomenclature committee. Very likely you have criticised it yourself either in word or in thought, and shaken your head and wondered why it was that in all this time there was no evidence that anything had been accomplished. You have noticed that a request has been made of the public at large that they send in such cases of mis-nomenclature as have come under their observation and have again wondered that there was no response to this appeal.

Now allow me to ask you confidentially—What have you done? You doubtless know of some plants that have been mis-named and re-named, but it apparently has not occurred to you that you had any individual responsibility in the matter and that it was your duty to make a memorandum of these cases and send it in to aid the committee in their work. It is your duty, however, and unless you do your duty the work must necessarily lag. We may get the very best men in the society on the committee and we may get old nomenclature himself for chairman and still the results will be comparatively meager if these men have for data only the results of their own personal observations.

The committee are ready and willing to work, but they must have help in collecting the material to work on.

Will you not render your share of this assistance? Do not put the matter off, but draw up to your writing desk and right now make out a list of synonyms known to you and send it in, either to the chairman of one of the sub-committees or, if you prefer, to the AM. FLORIST for publication in this column. Cases about which there is possible doubt might be published here to great advantage, as discussion would be drawn out and disputed questions perhaps settled better than the committee could possibly settle them. The rectification of our nomenclature is a large work, a work demanding the united wisdom of the entire florist guild, and if it is to be successfully accom-

plished you and every one must "bear a hand" and make what contribution you can to the general fund of facts.

Very truly yours, JAS. D. RAYNOLDS.

Request for Assistance from the Experiment Stations.

Copies of the following letter have been mailed to the Directors of the various Agricultural Experiment Stations:

The Society of American Florists has appointed a standing committee, a part of whose work it is to ascertain all cases possible where the same plant appears under two or more names in the catalogues of different dealers, and to take measures so far as they can to determine and publish the true and original names.

It has been asserted that many cases of renaming have been with fraudulent intent by dealers who send out old plants as novelties, or deliberately re-christen other people's novelties and send them out as their own.

This makes our task one of peculiar delicacy. It behooves us to be extremely cautious in promulgating any dictum which may carry with it the implication that any issuer of a catalogue has been guilty of attempted fraud. We must be very sure we are right before proclaiming that any plant is not entitled to the name under which it is advertised, and the only way to obtain this certitude would seem to be the buying from different dealers of specimens of varieties suspected of being identical and growing them side by side for a year or two till positive knowledge can be obtained. The Society of American Florists has neither the money nor facilities for doing this work, but the Agricultural Experiment Stations have both, and we feel that as a not insignificant portion of the great agricultural population we are entitled to a share of the benefits accruing under the Hatch appropriation bill, that we are entitled to ask of the Experiment Stations that they help us in carrying out this work—a work which we deem of great public importance as looking to the protection from imposition of the small buyers all over the country who have at present no means of knowing whether they are being imposed upon by the representations made in catalogues sent them by plant growers and seedsmen.

The nomenclature committee are to meet in Boston August next, and between now and then will be individually engaged in collecting needful data. When they meet lists will be made out of plants which should be grown by some one competent to establish their identity. We then propose to ask the Experiment Stations to take up the work and carry it on to conclusion. I desire to know from you whether you consider it in the line of your duty to undertake any portion of this work—whether you have present facilities for so doing and if so whether there is any particular class of florists' plants which your gardeners are specially qualified to handle. I am,

Very respectfully,

JAS. D. RAYNOLDS.

Chairman Com. on Nomenclature S. A. F.
Riverside, Ill., Feb. 6, '90.

LINUM TRIGYNUM (Reinwardtia trigyna).—What a beautiful little yellow flowering plant this is for winter, so showy and so profuse that even the cuttings in the propagating beds keep in bloom. But although copiously produced the individual flowers are ephemeral, hence useless for cutting. As a house or greenhouse decorative plant, however, it is useful and very pleasing to amateurs. W. F.



Seasonable Notes.

BY JOHN THORPE.

It will soon be time to buckle on the armor again in earnest; as the days get longer and the sun stronger greater activity is noticed day by day in the growth of the plants. If good cuttings are ready this is the time to begin to shape for specimen plants. I have found for the past five years the middle of February to be early enough. In making selections for specimen plants there should be good judgment used. I frequently notice that little care is given to this important point; for instance, without any information or idea of what the novelties are they are as a rule run into the race only to bring disappointment.

A chrysanthemum to be perfect for specimen plants wants every virtue and no failings. First, a healthy and sturdy habit of growth. Second, the foliage must be thick, heavy and profuse. Third, the flowers must be borne on strong foot-stalks, the shorter the better, so long as the flowers are held clear of the foliage. Fourth, the flowers must be bold, characteristic and expressive; not necessarily of the largest size, but they should be of even or about even size, showing good cultivation.

As to varieties, they must be distinct; they must wear well, that is they should keep in good condition for at least three weeks.

I append a list embracing a fine selection of colors, all of which have pretty nearly the points required. In starting plants for specimens I advise to begin with not less than three of each variety, and of such kinds as Cullingfordi, Mrs. Bowen, Wm. Stevens and Wm. Barr, start 6, retaining two or three of the best to the last, remembering that distinctness carries weight in a group of 25 or 26. In most competitions yellow and white predominate. As there is less difference in effect in these two colors than among the parti or mixed shades it should be borne in mind.

WHITES:	YELLOWS:
Domination,	Gold,
L. Canning,	Kioto,
Puritan,	M. Garnar,
Robt. Bottomly,	Pres. Hyde,
The Bride,	Wm. H. Lincoln.
BROOZE SHADES:	PINK SHADES:
Carew Underwood,	Alcyon,
G. F. Moseman,	Benoit Rozain,
M. E. Andre,	Mrs. Irving Clarke,
Sonree d'Or,	Robt. Crawford,
Wm. Stevens,	Violet Rose.
Zillah,	
CRIMSON SHADES:	PURPLE SHADES:
Cullingfordi,	John Thorpe,
Miss Esmerelda,	Lucien Ballet,
Mrs. Bowen,	Mrs. Wm. Barr,
Tokio,	Mrs. E. W. Clarke.

Chrysanthemum Inodorum Plenissimum.

I came across this plant in a prominent florist's greenhouse the other day, it had been sent to him as a new plant. But it isn't new by any means. It has been hawked around in florists' and seedsmen's

catalogues for many a day. This doesn't make it any the worse however, for it is a neat and free growing and copious little plant well worth growing in anybody's garden. I saw it in nice condition in editor Long's garden at Buffalo last August. It may be raised from seed or from cuttings. As is the case with most double flowers so it is with this, we often get inferior forms from seed, better propagate it from cuttings. And raise a fresh stock from cuttings every fall, for it does not live well over winter; this is not owing to tenderness, however, but rather to its somewhat annual nature.

Burning Sod.

This used to be, and probably is yet, done in many parts of England, although perhaps not so extensively as formerly, for the reason that there is not so much waste poor land available for the pur-



CHRYSANTHEMUM INODORUM PLENISSIMUM.

pose. The land was pared and burned somewhat in the way referred to by your correspondent, as seen by him in Bohemia. Much of this land only grew a scant herbage of short grass, with patches of wild thyme, gorse and juniper, on which sheep were pastured. This was burnt entirely to ashes, and spread on the land as a manure for barley and clover. It is one of the best manures for the latter, so much so that on apparently barren land it will produce an excellent crop. The effect on crops is said to last about two years.

The effect and value, however, depend much on the variety of soil; in the cases which came under my observation it was on land which, according to analysis of the ashes, would give the best results; that is, a stiff soil underlain by chalk. The result of an analysis by Sir Humphrey Davy gave from 200 grains this result: carbonate of lime 80 grains, gypsum 11 grains, charcoal 9 grains, saline matters, probably sulphate of potash and muriate of magnesia, 3 grains, oxide of iron 15 grains, insoluble earthy matter 82 grains, this being principally silica and alumina.

Another sample from a different soil and location, composed of three-fourths sand and containing a very small percentage of chalk: sand, clay and chalk 82 per cent, oxide of iron 9, charcoal 6, saline matter 3, chiefly common salt, and sulphate of potash.

A third sample from a strong clay soil contained 81 per cent of clay and sand, 2

of chalk, 7 of oxide of iron, 8 of charcoal and 2 of common salt and other saline matter. No doubt samples from the same localities would vary somewhat, and also from the same heap, but either burned or charred soil from sandy ground would be of less value in either case.

It would take too much space for a magazine to go into the details of burning other soils for ashes, and also the burning of clay from foundations or ditches for ballast, which was much done on the north side of London, and in other places, and also to some extent for fruit tree borders, where the subsoil was burnt and mixed with the stiff surface soil with good results.

Charring soil for general florist and gardening purposes is excellent where only a stiff cold sod is available, and although I look upon it more in a mechanical light than as improving the fertility, no doubt when burnt to ashes some fertilizing particles were made available which would not be in the raw state. It also made an excellent absorber and deodorizer for manure, both liquid and solid, never became sour or waterlogged, and plants generally made a more free and fibrous root than in soil usually available. I burned and used many hundred loads while at Chatsworth, having a very heavy cold clay soil above limestone. After the fibre was decayed and it became wet it was of the substance of brick clay, but after it was burned and the ashes and particles of charcoal mixed with it continued in a good friable condition.

I had abundance of waste wood from pruning and thinning trees, shrubs, etc. With this I made a good fire, and when a strong body of fire was obtained the sods were placed on it a single sod thick, and when thoroughly heated turned over to expose all parts to action of fire and thoroughly heat it through. This charred the outside and killed all insects and their eggs. A handy man with a fork and plenty of rough wood will char a large heap in a day, but from the large quantity I required it occupied some weeks. All the ashes and charcoal was thoroughly mixed with the manure added when the soil was used. We had several large tanks attached to water closets, which were pumped out and mixed with the heap for surfacing fruit borders, planting pine apples, etc., and the results were excellent.

Although I had adopted this plan previously on a moderate scale I carried it out so extensively on the advice of Sir Joseph Paxton, who told me he had found it necessary with the soil there, and he attributed the partial, and in some cases, entire failure of certain crops to neglect in using the soil without burning. We used also to keep a fire burning on the rubbish ground, which when once well started would keep in for an indefinite time, and not only consume all small prunings, but char and kill seeds of weeds and insects, and make an excellent manure also.

JAMES TAPLIN.

Maywood, N. J.

THE YELLOW IPOMEEA.—In a note, page 138, November 1 last, I referred to the shy blooming nature of this vine, in fact, I had not then seen it in bloom. But the other day a prominent florist exultingly pointed it out to me in his greenhouse in bloom (he had that instant only caught sight of it himself) and spread himself upon its merits. "Stop now," I said, "let me ask you a question. Is this the first flower of it you have ever seen?" "It is not," he answered. "Well then,

have you, before now, seen more than two blooms of it?" I asked. "I don't know that I have," he replied. At the same time I must not be too severe upon it, for I know too little about it. The flower was nearly two inches wide and of a real good yellow color, showy and decided, and borne on a rooted cutting in a 3-inch pot. He calls it *Ipomæa aurea*, but I have no means of verifying this name.

W. F.



Oncidium Splendendum.

Nearly thirty years have elapsed since this plant found its home in European gardens and was (until the last three years) extremely rare and only met with in select collections. Ever since its introduction many attempts have been made to rediscover its native home, and in 1887 it again made its appearance in the imported state and is now so widely distributed that few collections of orchids are seen without it. It is a vigorous grower and very distinct in habit; it is (when out of flower) sometimes confounded with *O. microchilum*, a plant similar in growth, its bulbs, however, are more pointed than *O. splendendum* and its foliage narrower; its flowers also are entirely different, being very small and arranged on a long many branched stem.

O. splendendum is easily recognized by its broad, blunt pseudo-bulbs which bear a bold thick leaf of leathery like texture, from the base of which the strong erect stems measuring $2\frac{1}{2}$ to 3 feet make their appearance. During the months of December and January the flowers expand, which renders it very valuable both for cutting and decorative purposes. The stems are well branched and often carry twenty to thirty large blossoms, each having a broad brilliant yellow lip measuring $\frac{1}{2}$ to 2 inches across, the sepals and petals are also yellow, heavily barred and spotted with purplish brown; at a glance they very much resemble *O. tigrinum*, but when compared will be found much richer in color and the formation quite distinct, the flowers expand easier than *O. tigrinum*; few days elapse from the time the flowers at the base of the stems make their appearance until all are fully developed.

It can be cultivated very easily, enjoying a position where ample light is available, especially during their growing season, baskets and blocks are most preferable, and when growth is completed place a very few degrees cooler to enable it to thoroughly mature before it commences to bloom, afterwards it may be removed to its former position in a temperature of 60° to 65° , when the spikes will appear and the blossoms remain in perfection for several weeks.

Summit, N. J.

A. DIMMOCK.

Laelia Arnoldiana, N. Sp.

This new species has been imported for L. Gouldiana which it resembles somewhat. It belongs to the group of *Laelias* of which *L. autumnalis*, *L. albida*, *L. Gouldiana* and *L. Crawshawiana* are members. It is distinct from either by its flowers, color and the remarkable free growing qualities. The pseudo-bulbs are 4 to 6 inches long, pyriform and deeply

furrowed. The leaves are in pairs, 5 to 7 inches long, leathery, lanceolate, very thick dark green; scape 1 to 4 feet long bearing 3 to 11 flowers; sepals and petals broad pointed, slightly reflexed at the end; of a rich warm rose color shading off towards the center; lip three-lobed, the lateral lobes straight, white or pale rose, middle lobe reflexed, deep rose purple at the end, pale towards the center, the interior traversed by two yellow ridges spotted purple.

The accompanying photograph will show clearly its distinctive points.

This fine species is dedicated to Hicks Arnold, Esq., of New York city, one of the most ardent lovers of orchids.

W. A. MANDA.

Notes From the Bussey Institute.

BY WM. FALCONER.

The Bussey Institute is the horticultural and agricultural department of Harvard University, and is situated at Jamaica Plain, a few miles from Boston and within four or five minutes walk of Forest Hills railroad station. This horticultural department, although alongside of the Arnold Arboretum, is entirely independent of it, as it also is of the Botanical Garden which is at Cambridge, several miles away. Prof. B. M. Watson is the instructor in horticulture, and his whole time is devoted to this work. He is a son of B. M. Watson, the nurseryman at Plymouth, Mass., and a graduate of Harvard, and has been the instructor in the horticultural department of the great university for the past ten years.

The lecture rooms and laboratories are in a handsome stone building surrounded by spacious grounds, and near by are several roomy greenhouses filled with all manner of plants. Charles Dawson, a son of the eminent Jackson Dawson, superintendent of the Arnold Arboretum, is in charge of the greenhouses, and, like his father, is an enthusiast in his profession.

The students are not only instructed in scientific research in the laboratories, but they also receive a practical outdoor and indoor training in horticulture, more especially in floriculture. But the training received at an institution of this sort is not enough to render a young man a proficient gardener or florist, it is an elementary rather than a finishing school. After studying here for a season he should enter some first class practical establishment like the Ames or Hinnewell gardens, if inclined to ornamental gardening, or the John May or Peter Henderson establishments if commercially disposed.

The greenhouses are the ones that used to be occupied by the Arnold Arboretum, and are roomy span-roofed structures. They contain a large assortment of miscellaneous plants and a good deal of attention is paid to growing plants to furnish quantities of flowers for Prof. Goodale's botanical lectures. The following were among the most noticeable plants in bloom at the time of my visit.

EPIPHYLLUM TRUNCATUM.—A pereskia vine had been planted in the border under the bench of a greenhouse and trained up under a rafter, and into this vine some years ago epiphyllums had been grafted. Three bunches were allowed to remain, and they now are immense hanging masses, say $3\frac{1}{2}$ feet wide by as much long, and covered with blossoms. Until two years ago they used to flower in November, but as they increase in size they bloom later till now it is January before they are in full beauty.

MAYFLOWERS IN POTS.—There was a

lot in one of the greenhouses and they were about breaking into bloom. In pots, pans or flats we can cultivate this precocious little beauty fairly well, but in the open garden it is very refractory.

EXACUM AFFINE in the form of bushy little plants about 9 inches high were thickly dotted all over with bluish-lilac fragrant flowers. It is a little gentian-wort from Socotra, and a few years ago was introduced to our notice as a prominent novelty by our seedsmen. Of no use for cut flowers.

CRASSULA QUADRIFIDA is worth growing as a house or bracket plant. It is easily grown in pots or baskets and thrives running wild along the greenhouse paths where ferns delight to grow, only it wants good light to induce it to bloom. A fleshy leaved plant with a profusion of panicles of small pinkish star shaped flowers. Easily raised from seed, cuttings or leaves.

IRIS JAPONICA was in good bloom. When nicely grown in pots it is a very pretty species; has fimbriated pale blue flowers and evergreen foliage. Although sometimes treated as a hardy plant, I have never found it perfectly satisfactory except when wintered indoors or in frames.

IRIS RETICULATA too was grown in pots. It is a gem, its flowers are dark purple, violet and gold and deliciously fragrant. But it is perfectly hardy and comes up and blooms year after year, and apart from I. Korolkowii the earliest blooming of all irises with me; it comes into bloom at the same time as do the crocuses and Siberian squills.

IRIS SUSIANA was growing finely in pots but not yet in flower. Among irises for pot culture this is one of the best. It is of neat growth and has very large, showy flowers, dotted and streaked brownish-black on a whitish ground-work. Roots first season after importing seldom give as fine flowers as they do after they have been well grown here for a year or more. In bloom indoors in February and March. Not entirely satisfactory outside.

IRIS ROBINSONIANA, "The wedding flower of Lord Howe's Island." There are several large three-year old specimens in pots, but so far they have shown no inclination to bloom. Who has bloomed it?

SARRACENIA PURPUREA, the common pitcher plant of our northern swamps. Some large clumps in pots reminded me of what an excellent plant this is for conservatory decoration, and too what odd and handsome flowers they bear. Get a lot of large, stocky wild plants and plant them singly in pots or several together in pans, well drained and in a compost of leaf soil and chopped fresh sphagnum moss. Water abundantly at all times. Keep the plants in a cold frame till Christmas or later, then introduce them into the greenhouse. In a few weeks' time they will throw up their bright yellow flowers and later renew their foliage.

GOLDFUSSIA (*Strobilanthes*) *ISOPHYLLA*.—Extremely floriferous acanthaceous plants with lavender colored flowers. Very pretty for conservatory decoration, but of little use for cut flowers. Easily raised from cuttings. One year old plants bloom freely, but two or three year old plants are the most copious.

CHORIZEMA VARIEUM.—These are neat dense bushy plants with red and yellow pea flowers in the greatest abundance. Years ago they were quite common in our greenhouses, but recently, although still in demand, we seldom find them. If well cared for plants will live for years,



LELIA ARNOLDIANA

but they bloom freely from one year old. Easily raised from cuttings or seed, but preferably, in the case of the finer varieties, from cuttings.

WINTERING NELUMBIUM SPECIOSUM.—Prof. Watson was a little troubled about how best to do this. He has it growing in a tank in the greenhouse and from which he runs off the water in winter, and the tank is now full of roots. But he tells me that before starting time in spring most all the roots in the middle of the tank will probably die out and only a few pieces near the outer edge of the tank be alive.

SALVIA GESSNERIFLORA and **S. Heerii.**—Both of these handsome scarlet flowering species were in brilliant array and furnished an abundance of a color which at this season of the year is rather scarce among our flowers.

FREESIA LEICHTLINII.—Prof. Watson seems to like this species better than *F. refracta*, it produces such stiff stems and handsome large flowers. Well, I don't. I don't get half the quantity of flowers from *Leichtlinii* that I do from *refracta*, and with me *refracta* is healthier, longer stemmed, more branched and earlier.

FINE FREESIA REFRACTA.—Prof. W. tells me of a neighbor of his whose *refracta* last year were two feet high and lots and lots of the sprays bore eleven to thirteen flowers a piece.

RHODOCHITON VOLUMBE was trained along strings under the roof. This is a soft-wooded, Mexican, *Lophospermum*-like vine that bears the greatest profusion of very dark purple, drooping, campanulate flowers whose beauty is enhanced by the bright yellowish white anthers inside the bells. Of no use for cutting, but a pretty plant for amateurs either indoors in winter or outdoors in summer. Increase from cuttings; it may also be grown from seed, but I seldom have got good seed.

EUPATORIUM TRISTE.—Under this name I found here and elsewhere around Boston quantities of a handsome white flowering form grown for winter blooms. It is in the way of *E. lanthum*, and has large corymbose heads of showy fragrant flowers. Worthy of general cultivation. But I am not sure about the authenticity of the name "*triste*," is it *E. Weinmannianum*?

SPARMANNIA AFRICANA appeals for recognition. It is a South African large-leaved shrub with large terminal bunches of showy white flowers with a prominent mass of purple, yellow tipped stamens in the middle of each. Propagated from cuttings. The plants live long and if encouraged grow large, and they bloom every year during the winter season, even one year old plants bloom nicely.

LOESELIA COCCINEA was in full bloom. It is a little Mexican plant with a profusion of scarlet flowers, but it is apt to lose a good many of its lower leaves, and very subject to red spider.

OLEA (OSMANTHUS) FRAGRANS.—Some bushes of this deliciously fragrant shrub were in bloom. It is an evergreen shrub, a native of Japan and China, and bears a great profusion of quite small whitish but delightfully fragrant flowers. It is not hardy here, but can be safely wintered in a cool pit, as it will bear 15° of frost with impunity. Much esteemed as a house plant. Some of our "mail" florists who retail large quantities of it have it propagated and grown for them in Florida.

OXALIS CERNUA, yellow, was the handsomest of its race in bloom. It is bold and copious and a deserving window plant. And there is a double flowering form which is not uncommon.

BEGONIA FROEBELI presented a cheerful aspect; its brilliant scarlet flowers and large handsome foliage spread over plush-like with bright purple hairs render it an

acquisition among ornamental plants. A native of Ecuador and esteemed in cultivation for its winter blooming nature. James Taplin when at Such's used to grow this fine species in splendid form.

ALLIUM NEAPOLITANUM.—Good plants in pots were in bloom and much appreciated. And I can recommend it. Although its leaves are long and somewhat limp it throws up stiff enough flower scapes and the umbels of white flowers are real pretty. And the bulbs multiply and bloom year after year even when grown in pots.

ARCUM DRACUNCULUS.—I noticed a lot of these in vigorous growth in pots, but not yet in bloom. It is a native of southern Europe and commonly known as the Dragon or Snake plant. It grows about two feet high and, usually in May, produces a flower in form like an enormous calla blossom, but of a blackish chocolate color and emitting a most powerful and abominable odor which, however, is intermittent.

HYBRID CHRISTMAS ROSES (HELLEBORUS).—Prof. W. had a group of these in pots and in fine bloom in a greenhouse; they consisted of hybrid forms of *H. Olympicus* and *H. Colchicus*. The plants were tall and leafy and the flower stems branched and the blossoms carried well above the foliage; some had crimson purple flowers and others white blossoms more or less dotted or streaked with purple. These plants are ordinarily hardy, but can only be had in perfection in winter when grown in frames or indoors just to save their flowers from damage on account of the vicissitudes of the season. Although good as cut flowers their great importance is as pot plants; they are showy, tough, hardy, long lasting and distinct from all other plants, and commercial florists appreciate them. Indeed President Calder of the Boston Gardeners' and Florists' Club, was very eulogistic regarding these same plants.

WINDOW PLANTS.—In the dining-room and parlors of Prof. Watson's residence are large bay windows and these are filled with many kinds of plants; the windows of his upstairs rooms are also furnished in the same way. In the rooms, as the dining and sitting room, that are kept moderately warm, *Ficus elastica*, several palms, a large *Musa ensata*, large leaved begonias, *Grevillea robusta*, *Nephrolepis exaltata* and *N. tuberosa*, Chinese narcissus and other seasonable flowering plants are grown. In the hallway columnar Irish yews in narrow tubs keep guard, and in the cooler parlors and other rooms the laurustinus is in bloom and associated with it are the Portugal laurel, English holly, New Zealand flax (*Phormium*), *Ilex* "*Japonica*," *chamerops*, palms and the like fill up the space. Masses of Christmas roses in pots are also freely used. Prof. W. speaks very highly of the above ferns (*Nephrolepis*) and the New Zealand flax as window plants. During the chrysanthemum season he had some of his bay windows filled with them, and now he is preparing a lot of hydrangeas in the greenhouses to bring in for effect in spring.

Violet Crops.

Under the head of Chicago, on page 268 of January 15 issue, is given the number of violets cut from a house of given size in a given length of time, by Mr. Geo. Klehm. I was glad to see this report as such data is both interesting and valuable. Although I have been growing violets for a number of years, I have never before seen a report of the number

of blooms picked from a given space. However, I can make a better showing than George. I have a bench 4x100 feet from which I picked 10,550 violets from November 1, '89 to January 17, '90. I might further say that 3,800 of these were picked from December 23 to December 31, '89, and so came in very nice for the holidays. H. DALE.

Brampton, Ont.



Souvenir de Wootton.

This rose like all new roses has its friends and enemies. Difference in soil, location, methods of culture, etc. generally bring about this result. To produce flowers of fine form, and in profitable quantities, requires a special study of this or any other rose. The small sized flowers that are put on the market and the murmurs of dissatisfaction heard on every hand are chiefly due to a lack of acquaintance with the rose. No one can justly expect to attain the best results with a few small plants, put into and grown with a house of Mermets, Niphets, etc.

The Wootton requires different treatment from that given the true tea roses, in fact it must be grown separate from other roses. No doubt by some lucky chance some growers may have succeeded in growing it in good shape in any house, but this has been the exception.

The Wootton is a very free blooming rose. The color when well handled commands attention at once and in fragrance it ranks A 1. It should be planted early and induced to make strong growth; the wood should be well ripened and treated cool when starting for winter flowers. It is almost as impatient of heat as any of the H. Ps. Heat diminishes the size of the flowers and injures the color, as also will smoke. As a cut flower rose from November 1 until March 1 there should be a place for it where any one can devote an entire house to it and give it the special treatment it requires.

We can not expect everything in one rose. The perfect rose is not yet in sight. CHAS. P. ANDERSON.

Flushing, N. Y.

—In reply to your inquiry regarding Souvenir de Wootton, I would say that my opinion of the rose as grown on Long Island is as follows:

The rose is a strong robust grower and free bloomer, foliage and growth resembling very much that of Bon Silene, but far more vigorous and less liable to mildew. I have so far seen no black spot on the leaves, nor should I consider the rose from its habit subject to that fungus.

As to the flower of the Wootton and as to its selling qualities, I do not think the rose has been given a sufficient trial for any one to be able to say with certainty much regarding it. The rose is a great bloomer and can be classed as a rose that it would pay to grow for the same price as Perle des Jardins. Its greatest fault lies in the fact that its brilliant red color fades soon after cutting to a dull red, and when a day old has much the appearance of a faded flower. The average bloom with me is about the size of a good Perle

des Jardins, with a few flowers from stronger wood nearly the size of an American Beauty when fully expanded.

It is a very poor fall rose, as the buds come small, although they may improve with better plants.

I think there is too much that is good in the rose to discard it on a first trial. Another year ought to show whether it has a place among our commercial roses or not. JOHN H. TAYLOR.

Bayside, L. I.

—Regarding the "Wootton" rose I would say that in my case it has proven to be one of the most profitable roses of the season. It has been very free in blooming, the buds have generally been of a good color with nice long stems, while the plants are and have been all the season the healthiest and finest on my place, never having once been attacked by black spot, mildew or any other disease. W. W. COLES.

Lansdowne, Pa., February 6.

Notes at West Hoboken—A Good Word for Wootton.

At Ernest Asmus' immense range of greenhouses at West Hoboken may be seen the rose Madam Cusin at its very best. Its freedom of bloom is phenomenal, while the size and color are a revelation to one who has only seen it in the west where it is rarely grown and still more rarely well grown. It is high time western growers woke up to the great value of this rose which has been extremely popular and salable in New York and other eastern cities for some years.

Mr. Asmus in common with most of us has been finding Perle des Jardins less and less satisfactory year by year, and is now largely substituting Madam Hoste, which, though lacking the strong color of Perle, seems in every other respect much more desirable, and experience has already shown that its pale color is no bar to its ready sale as was at first feared.

Only a few Woottons have been grown here as yet, just enough to try, but these few have done remarkably well, and show a smaller percentage of poor flowers than at any place the writer has seen. It seems probable that many who have grown this rose for the first time this winter, have been in too great haste to condemn it. They started out with extravagant expectations of something rivaling American Beauty, and being disappointed in this, at once set it down as a fraud. The fact is the Wootton has been handicapped by being entered in too fast a class. Just enter it in the Papa Gontier class and give it another trial; it will probably prove to be a rose well worth growing after all. R.

Notes at Bayside, L. I.

I went out to Bayside recently primarily to pay a visit to Mr. Taylor (in which I was disappointed, he being away from home), and incidentally to see his roses, especially those Meteors we have been reading about. The Meteors were not away from home, they were right there attending to business, in good bloom, of fair size and most excellent color. It is truly surprising, the things some folks can do that other folks can not get the hang of. Why, even brother Gurney Hill who grows plants of Meteor for sale can not find it in his conscience to recommend it as a forcing rose, and yet behold here it is, forced quite satisfactorily. I think it must be admitted as beyond question that growers on the Atlantic coast get more sunshine in the early winter months

than we in the west are favored with. Roses like Madam Watteville for instance, that are known to require plenty of light seem to be forced profitably in the east, and have, so far as I know, proved quite a failure west.

Mr. Taylor's "Cyps" referred to by a recent correspondent as being partly cut off for Thanksgiving are still holding their own over about one-third of the house and look as if they might keep till Easter if wanted. It really looks as if these cypridiums should be taken out of the category of perishable commodities and classed with shelf hardware, to be kept until sold. R.

Fuller's Rose Beetle.

(*Aramigus Fulleri*, Horn)

Among the many greenhouse pests which are a source of constant annoyance to the florist, the so-called Fuller's rose beetle (*Aramigus Fulleri*, Horn), stands near the head. Its little known habits make it, to the florist, like "an unknown evil in the dark." He kills the insect when he finds it, but in the majority of cases his plants continue to wither and be defoliated and the blossoms eaten out. As it is such a pest and spreads so rapidly over our country, it would be well to consider, briefly, what is known of it and the methods of extermination.



Fig. 1. Beetle.

This beetle (Fig. 1) is a weevil, of a black color, covered with dark brown scales and about eight millimeters (5-16 inch) in length. The abdomen is oval in shape and the thorax quadrate, while the head, which is about the length of the thorax, extends obliquely downwards. The eggs are oval in shape, smooth and yellow. Dr. C. V. Riley, the United States Entomologist, in speaking of the eggs and larva of this insect, says: "The female shows a confirmed habit of secreting her eggs, which are thrust between the loose bark and the stem, especially at the base, just above the ground. These eggs require about a month to hatch, and the new horn larva which is of a pale yellowish color with light brown mouth parts, is quite active and immediately burrows

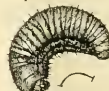


Fig. 2. Larva, after Riley.

into the ground and acquires very soon after a bluish hue. Just how long this larva (Fig. 2) requires to attain full growth I have not been able to ascertain, but in all probability it remains at least one month, and probably several more in the ground, where the pupa state (Fig. 3) is finally assumed." The root eating habits of the larva render it very difficult to combat, as its presence is very seldom indicated by any outward appearance.

Should a plant begin to fail from some unknown cause the roots should at once be thoroughly examined. If any are found at all it will probably be in some considerable number. It is very evident from the life of the larva that our efforts should be, for the great part, directed against the mature insects.

Reports from a number of florists would seem to indicate that this insect directed its attention more to roses than any other greenhouse plant. Mr. Louis Knapper, florist in the greenhouses of the Michigan State Agricultural College, states that his experience has been, that although for a number of seasons these insects have occurred there in considera-



Fig. 3. Pupa, after Riley.

ble numbers, yet among a large number of roses not one had been injured by the larva, and only one variety (the bridal rose), in one instance, had been known to be damaged by the imago. In the above named greenhouses the greater part of the damage done was by the imago to the foliage of large hard wood plants. During the last fall an acacia was so stripped of its foliage that it died, and an orange tree was also very badly injured. Other plants on which it had been working were the palm, dracena, fig (ficus), camellia, sylvia, mespilus, a number of grasses, bridal rose, brodiaea, hibiscus, eupatorium, habrothamnus, olive (olea), viburnum and wall-flower. It has been observed in California as attacking several plants, among them the dracena, orange, Cape Jessamine (gardenia), and achyranthus, feeding on their outdoors. If it is liable to become troublesome to the orangegrowers steps should at once be taken to make a complete investigation of its life history and habits, and the best means of exterminating it, for the method usually applied in the greenhouse could not be applied equally well in the orchard. The greater part of the damage is done during the night, the insect during the day resting quietly on a twig or branch, or between the petals of a flower.

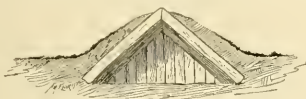
As one of the means of ridding the greenhouse of these insects, hand picking has been recommended. Those who have tried this method will support me in saying that it is very tiresome, unsatisfactory work, and takes more time than the average florist has to give it. The beetles being about the color of the twig or branch on which they rest, or being hid deep down between the petals of a flower, are most difficult objects to find. Another much easier method and one that will occupy much less time is jarring. A large piece of white cloth or canvas, such as is often used by the florist, should be spread on the table or floor and the infested plants in their pots jarred over it. If not in pots the cloth or canvas may be spread under them around the stem. The jarring is accomplished by giving the stem a quick sharp blow with the hand, or with a stick on which cloth has been wound. This method, of course, applies to the mature insects only. Before jarring the plant should be handled carefully and not unnecessarily agitated, for when alarmed the beetles do not fly, but only cling the tighter to their resting place, or let go their hold and drop. They are most admirably adapted for "playing possum," for when lying on the ground or in a pot of earth with their legs drawn tight to their bodies and their antennae folded in they can hardly be distinguished from a ball of earth. A very plausible method of preventing the damages done to the roots by the larva of these insects has been suggested by Dr. C. V. Riley. He says: "I would recommend as an effectual preventive measure the tying of a few thicknesses of tape, or of narrow pieces of rag, or even of stiff paper around the butt of the plant to be examined, detached every three weeks and burned if eggs are found in them. When the number of plants is large this destruction of the eggs might be expedited by the employment of traps, consisting of small stakes around which such layers of cloth or paper are tied. These should be thrust in the ground near the main plant and can be collected once every three weeks, thrown into a tub of hot water, subsequently dried and used again without untying the bandages. A few folds of oil paper thrust into a slit in an ordinary wooden label—materials

always at hand in a greenhouse—might also be advantageously employed." It is very probable that spraying with London Purple might be carried on with success in this instance as it is with the plum curculio and other nearly related insects. If this remedy be used it should be in the proportion of one pound of the London Purple to two hundred gallons of water. A stronger solution should not, as a general thing, be used, as it might possibly ruin the foliage of the more delicate plants.

M. A. C., Jan. 20. CHAS. F. BAKER.

A Root Cellar.

Our root cellar is a temporary structure or pit made of posts and old boards banked with earth and rendered frost proof by covering on top. The bottom is 3 feet under the ground level. It is a lean-to structure, facing south, back is 7 feet high, front 5 feet high, and it is entered by a door at east end and ventilated by a window at west end. The drainage is perfect. The roof is lined with old boards over which tar paper is tacked and held in place by strips of bass-wood. Against the back, front and ends we bank up the earth in winter and lay a



SECTIONAL VIEW OF A CHEAP ROOT CELLAR MADE OF OLD RAILROAD TIES.

lot of thatch on top of roof and hold it in place by brush. This renders it perfectly frost proof, and by using the door and window we can keep it pretty uniformly cool. In spring I remove the thatch from the roof, then lay some tall brush leaning against the sides of the pit all round and sow scarlet runners and nasturtiums along beside the brush. These soon grow up a mass of vines and blossoms and the runners particularly keep green and fresh all summer. Inside there is a 20-inch wide pathway along the back, and from the path to the front wall the space is divided into 2 feet and 3 feet wide bins with a 3-inch wide empty space between the bins.

In this pit we store our roots as potatoes, carrots, parsnips, beets, salsify, etc., and they keep splendidly. And we also keep in it a good many miscellaneous flower roots.

The main points to be considered in such a pit as this are perfect drainage, a regular low temperature without admitting frost, a sweet atmosphere caused by ready ventilation if needed, and security from drip and vermin.

In mild localities as ours here an extra deep pit is not necessary, for it be remembered that while the deeper the pit the warmer and more equable it is in winter, it is also apt to be damp, but in rigorous localities the deep pit is the most desirable.

For the general florist such a pit is very useful as he can store a large quantity of stuff in it over winter. He can keep his potted bulbs in it till he is ready to bring them indoors for forcing. He can store his common cannas and Madeira vine tubers in it, but he should not trust calladium or gloxinia roots in it. He can winter all manner of evergreens that he uses in his business, but which are too tender to leave outdoors without protection, for instance, Portugal and Span-

ish laurels, bay laurel, laurustinus, English hollies, Japan privet (Ligustrum Japonicum), finer hybrid rhododendrons, araucarias, camellias if necessary, and several others.

And among deciduous shrubs as crape myrtles, azaleas, figs, lemon verbenas, hydrangeas, pomegranate and the like can be safely kept, so too can pampas grass, bamboos of the aurea and metake order, tritomas, aspidistra and others. And if kept up off the ground and quite dry the stronger agaves live well enough in such quarters.

It is a good place to keep a stock of lilacs, snowball, crabapple and other potted shrubs to be in readiness for forcing. And if one receives a consignment of roses, clematises or other outdoor plants in winter time such a pit is a capital place to store them in till it is safe to plant them out of doors. In fact a pit of this sort can be used for most any purpose that a cellar or shed can be used for in the way of storing plants in, with one advantage over them, namely, uniformly low temperature, and one disadvantage to wit, probable dampness, but ready means of ventilating will remedy this.

Glen Cove, N. Y.

W. F.

—Our sketch gives a sectional view of a cheap root cellar of small size made of old railroad ties, built by Mr. Geo. Klehm, a florist at Arlington Heights, near Chicago. Where such material can be obtained the cost is usually very slight and it can be used for this purpose to splendid advantage. The cellar in question is ventilated by small openings at the apex in which are inserted short sections of terra cotta pipe. He uses it mainly for holding bulbs which are to be forced, but he finds it extremely useful in many other ways and believes that no florist can afford to be without a convenience of this kind, especially in view of the very slight cost.

Asparagus Tenuissimus.

That we do grow and sell asparagus, after all that has been said against it when a few years ago we first got it, is an undisputed fact now and I am inclined to think the principal objection against it was in the vegetable name, but the anticipation of some very sanguine admirers of it that it would in time take the place of smilax, was not realized, for smilax is as much in demand now as ever it was and will be for years to come. But I think the asparagus also has come to stay and a few hints on its cultivation may benefit some of the brotherhood.

To grow this most useful vine requires no more skill than it does to grow good smilax, nor does it require more labor, but plants should be planted a little further apart in the bed, for they will after the first cutting down send up a number of new growths which could not be kept in their respective places close to the strings if no more room was allowed than we generally allow to our smilax. When planting a new bed it should have perfect drainage as the first requisite and from one and a half to two feet of good rich soil, rather light and sandy so as to let the water soak through freely. If we see this asparagus occasionally in a feeble state, looking yellowish and not making vigorous growth you may be sure that the soil is not porous enough and drainage not perfect, the soil is getting sour and this is what the plant dislikes. In a healthy bed the roots will go away down, how deep I do not know, but in digging up an old bed last summer we found plenty of roots two feet below the sur-

face, but did not dig down any further to find out how deep they actually would go. It is well known to every one in the trade that we propagate it by cuttings, but I would advise any one contemplating to grow it for market to set out strong plants, one year old at least for a beginning, because these will run up directly to the end of your string or beyond, while younger stock would require months before they could gather strength enough to make even an attempt to run up three or four feet. Keep the bed well watered without actually soaking and give plenty of air in warm weather, no shading is required in the hot summer months if a daily syringing is administered. Unlike smilax it flourishes best under the full force of the sun and therefore should have all the light possible, especially during the winter months.

Once planted a bed will last a number of years in healthy condition, but we must either top dress or feed with liquid manure freely after the first season and when the plant stools become so matted as to run into each other every second plant may be taken out in order to allow more strings to the now very numerous growths springing from the plants. I would rather not run a bed any longer than four or five years without renewing the soil and would prefer younger plants grown in pots to the old stools for replanting, as some have recommended.

Asparagus plumosus will stand the same treatment, but as it is a much more rampant grower should have more room accordingly. JOHN B. KELLER.

Rochester, N. Y.

Notes From the Arnold Arboretum.

About ten minutes' walk from Forest Hills station brings us to Mr. Dawson's house, where we experience the genial hospitality peculiar to our host and his family. Under the drenching rain we forgo a ramble through the arboretum and nursery grounds, for these can only be seen to advantage in summer. In the home nurseries most of the young and new plants are mulched over in beds or covered up in deep pits. But propagating is always in order in the greenhouse.

A NEW ACACIA.—Mr. Dawson had a very beautiful acacia in bloom, it was one year old from seed, about 2½ feet high, bushy but graceful and covered throughout with bright yellow, small round flower heads. The foliage is in the style of *A. Farnesiana*, but smaller. It is a native of Western Australia. Its beauty, free growth and abundant and early blooming nature impress him very favorably.

SOME GOOD LILACS.—Mr. Dawson gives me the following as being, all points considered, about as good a selection as one need make: Dr. Lindley, Philemon, Chas. X., Marie Legraye and *Vulgaris alba*.

ZANTHOIRHIZA APIFOLIA.—This, the Shrub Yellow Root of the Alleghenies is a neat low growing spreading shrub, that in early spring bears a multitude of compound racemes of dark purple flowers. Mr. Dawson is growing a large quantity of it for planting on banks and slopes. It thrives in ordinarily moist and faintly shaded places and I have found it quite hardy as far north as Boston.

THE CALIFORNIAN CROWFOOT (*Ranunculus Californicus*).—Mr. Dawson has it in good bloom in pots in the greenhouse. According to Serceno Watson "This is by far the most common and abundant species in the State (California), and is particularly abundant in the coast ranges

where low grassy hills are often yellow with the shining flowers in early spring." About 15 to 18 inches high, with branching stems, divided leaves and many showy buttercup blossoms. But suitable only for amateurs.

A GORGEOUS FLOWER BED.—Nothing in the neighborhood, Mr. Dawson tells me, excited so much admiration as a bed of composite plants that he had made last year alongside of a board fence and running up to the road. The bed was 50 or 60 yards long and about 10 feet wide and filled full with all manner of sun-flowers, helianthus, veronias, silphiums, heliopsis, boltonias, asters, solidagos and other composite plants; they had been planted thickly, the taller growing species to the back and the shorter ones to the front, and allowed to grow up altogether and interlace among each other. Most all of them were luxuriant growers and late and showy bloomers, and in fall the whole formed a dazzling bank of purple and gold that fixed the attention of every passer by. W. F.

How and Why Some Men Make Money and Others Do Not.

Men who make money in any business do so by correct business methods, not by being slipshod in any particular. Go into any successful merchant's store and you will find there some sort of a system in operation. So it is in any kind of business. If you do not find it you hear the proprietor complain of dull times, or something else, and in nine cases out of ten can look for his failure.

Now take our florists and nine-tenths of them keep no books of account in any form, their places are dirty and half full of litter, their stock below the standard and they complain that times are dull; in fact, there is a lack of system.

If you do not keep accounts how do you know whether you are making or losing? Can you tell whether you have made or lost on any particular line? Can you tell whether it is best to keep a certain line or "heave it out"? No. You have no system and that is what is the matter. You try to do too much with too little. You can not grow all varieties of plants in one house with the same treatment.

There comes to my mind two or three cases which bear on this matter, viz: One party is growing roses for cut flowers and he is making money. Why? He has a system of doing his business, and he tends to business. Another is growing nothing but pinks. He gets more than other growers, for he pays particular attention to his line and nothing else, and he has a system of doing business. So is a man who is growing plants. He grows a few kinds that require very similar treatment in one house, others in another and so on, in fact, he has a system. He also keeps a set of books and could tell you, I doubt not if he chose, whether he made or lost on any particular line last season or not, thereby enabling him to tell what to grow and what to let alone.

On the other hand there are as many others who are always complaining of dull times and who say there is no money in the business. Let us look into their houses. We find cut flowers, stock plants, bedding plants of all kinds and everything else all huddled up in one house and all getting the same treatment, in fact, no system. Ask one of them whether he made or lost money on any particular line and he can not answer you. He don't keep any books. How can he? In

fact, he is growing stock helter-skelter without any regard either for the plant, his business or his customers.

We are all of us looking for "the great American dollar," and to get it we have got to have some kind of a system of doing business, and when we get one tend to business; and also we have to have some way of knowing how and where we stand.

Take this subject into consideration, run over the list of your acquaintances and you will find that the mark aimed at is not so far off as you imagined. It may be yourself. At any rate commence there first.

ALFRED B. COPELAND.
Springfield, Mass.

Improvement in Greenhouse Flues.

The improvement in heating greenhouses has been great of late years, but I think the benefit has been far more to the large commercial grower who can command a large capital than to the small florist whose means are limited and whose resources must needs be husbanded and every dollar made to bring its due reward. I also think many small growers have been induced to change from flues to hot water or steam, whose money so spent would have paid them greater returns invested in more glass. I must also insist on what I believe to be a fact, that the new arrangements are no more economical of coal (and not always of labor) than the old fashioned flue.

Many may think the flue has had its day, but this is a great mistake. For the florist with his few thousand feet of glass there is nothing more economical, cheaper in first cost, or more effective than the same old fashioned greenhouse flue. It has its defects I am aware, but they are such as to be easily overcome, and the attention required to keep them in proper order and trim and the watchfulness needed in managing the plants of a house so heated is a great element in the success of the small florist. With the improved systems the plants often suffer from this want of acquaintance. I might say, too much being expected of these improvements. There is no system that can dispense with the watchful care of the careful hand.

One of the greatest defects of the flue system is the unequal distribution of the heat. This is partially overcome when two or more houses adjoin by placing the furnaces at alternate ends of the houses, or in case of a long house, at both ends, or a large brick drum at the end opposite the furnace is occasionally used with some measure of success.

Now it seems to me that the flue has been greatly neglected, or perhaps it has been thought that since Mr. Peter Henderson suggested placing the chimney over the furnace the acme of perfection had been reached. This indeed is an excellent arrangement, and all flues should be constructed on that principle when possible to do so. But my object in writing this paper is to describe a method that will more than double the usefulness of any flue and probably save some coal into the bargain. It is simply a water-back placed in the flue working exactly on the same principle as a water-back in a kitchen range.

The device as used in my propagating house (70 feet long) will be better understood by referring to the accompanying drawings.

Fig. 1 represents the elevation and Fig. 2 the plan; aa is the bench; bb the floor of house; c the furnace; d the brick flue; e the terra cotta, and f the chimney. The

Fig 1.

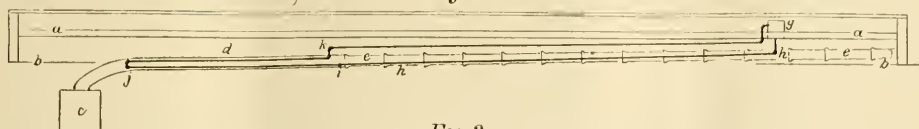
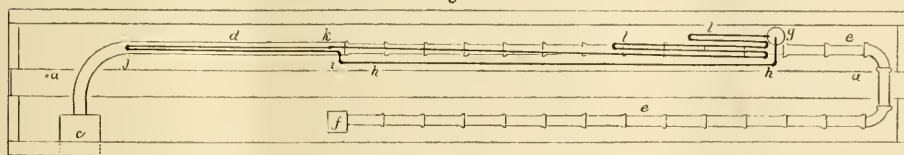


Fig. 2.



IMPROVEMENT IN GREENHOUSE FLUES.

return pipe, h, starts from the bottom of the small tank, g, which may be placed at any convenient point on the bench.

It drops some 18 inches and makes a bend to the front having a gradual fall to the point i, where it makes a turn into the flue at the bottom. After entering the pipe makes another turn along the bottom of the flue still falling to the point j, running 16 feet within the flue, then rises and turns back along top of flue to k, leaving flue at that point by a turn and short rise. Bending again the pipe continues to rise to the tank as shown; this portion being the flow. A coil, l, l, Fig. 2, is inserted in the flow and in this there is a turn for 12 feet back, then 12 forward, 6 back and 6 forward and up to tank.

In this water-back we have a perfect circulation of water. The hotter the furnace the greater the circulation and the more heat conveyed from the furnace to the other end of the house. The whole arrangement is made out of 1-inch wrought iron pipe with the appropriate couplings and put together by ourselves, the plumber near by cutting the pipe for us. The pipe was second hand and cost but 6c per foot. The tank is a 15-gallon paint keg cut off at top to fit in under the glass.

The whole arrangement did not cost \$3 and the result is very satisfactory. Before the pipes were put in there was a difference in temperature between the two ends of house of 15° to 20° on cold nights. Now there is practically a uniform temperature excepting immediately near the furnace. Besides it gives us a very uniform and gentle bottom heat for our cutting bench along its entire length. I believe this principle is capable of extended application.

It is obvious that the pipes can be led to any point of a house and in any manner desired having the coil or coils where they will best equalize the temperature. The flow may be led overhead, under the bench, or even carried into an adjoining house. The small tank can be placed in the comb at the end of a large house, or in any position where most out of the way. Attention must be given to keep it full of water, as when firing strong several inches will evaporate from it in a night. If made of boiler iron and a simple safety valve attached the water could be circulated under pressure and the apparatus perhaps prove more effective. The evaporation from the tank also furnishes the needed moisture in an effective manner, at least to that end of the house.

It is not necessary to follow the construction shown in cuts. The water-back may be placed nearer the fire—a chamber being constructed at the neck of the furnace to accommodate a coil—this coil of course to be placed below the rest of the system. In fact, my neighbor, Mr. Chas. T. Starr, has a house heated by a coil placed within the furnace, but in his case 4-inch cast iron pipes are used for flow and return. I consider the small sized pipe preferable, being cheaper and the circulation quicker, heating up or cooling faster, a desirable advantage. Besides the large pipe would be impracticable in my case, being too large for an ordinary flue. The 1-inch pipe is no impediment to the draft.

In using a water-back as I have described, I think at least one third the terra cotta might be dispensed with and the money thus saved would nearly or quite pay for the entire improvement. However, I would recommend that 1-inch galvanized pipe be used, which would cost new 11 cents per foot. It would take 150 to 300 feet of same for a house 60 feet long, together with the necessary bends and couplings. A spigot should always be provided at the lowest point for drawing off the water.

There is nothing patented or patentable about this affair, so that I have no further motive in writing it up than the simple desire to have others benefitted by it in the same manner it has thus far benefitted me. W. R. SHELMIER.

Avondale, Pa.

News Notes.

ROCKFORD, ILL.—J. J. Soper has built a new house 100x20.

NEW ORLEANS.—The New Orleans Hort. Society has issued the premium list for the coming April exhibition.

EAST SAGINAW, MICH.—A. Grohmann & Sons have finished their new store and greenhouse at 317 Fitzhugh street, which will be run in connection with their old place two miles out of town on Saginaw street.

JOHNSTOWN, PA.—Adolph Stahl, formerly with H. A. Dreer, has formed a partnership with Andrew Akers, son of the late Alvar Akers, of this city, and the business will be continued under the firm name of Akers & Stahl.

HARRISBURG.—John Loban, Sr., the state florist, died January 1 from a com-

plication of pneumonia, heart and brain trouble. He was in his 70th year. He has been the state florist for twenty years and was well known. He leaves a widow and three children.

WILKES BARRE, PA.—Chas. E. Stenson, who has been in the employ of B. F. Dorrance of this city for five years, has rented the greenhouses and office of Barton Bros., Uniontown, Fayette county, Pa., and will continue the business formerly conducted by them.

NEW YORK.—Thomas T. Carr, the Sixth avenue florist, has purchased the old bank building at the corner of Thirty-fifth street and Sixth avenue for \$57,000. Florist Charles Thorley is reported to have had about \$4,000 on deposit with the Sixth National bank which has recently closed its doors. The bank will probably soon resume and the inconvenience to depositors be only temporary.

INDIANAPOLIS.—The fourth annual meeting of the Society of Indiana Florists will be held in this city February 26 and 27, at the State House. A railroad rate of one and one third fare for the round trip has been secured for those attending. A number of essays upon subjects of interest will be read before the meeting in addition to routine business, and a reception and entertainment will be given to the members the evening of the first day.

HORNELLVILLE, N. Y.—The date of the death of A. J. Plimpton should have been given December 18 and not January 18 as given in your former issue. Mr. Plimpton has been in the greenhouse business since 1867, having established the first one in the county where he resided. He was well known in Western New York and will be greatly missed by a large circle of business and private friends. G. R. M.

BALTIMORE.—A certificate of incorporation of the Florists' Exchange, of Baltimore City, was filed for record in the clerk's office of the Superior Court February 1 by Isaac H. Moss, John Wiedy, William McRoberts, Jr., and William Feast, of Baltimore county; Edwin A. Seidewitz, of Anne Arundel county; Robert J. Halliday and Charles G. Campbell, of Baltimore City. The purposes of the corporation are for procuring and preparing for market, and buying and selling trees, plants, seeds, fruits and flowers, roots and other products. The capital stock is \$5,000, divided into 1,000 shares.

42 W. Main Street, ROCHESTER, N. Y.

ROSE BUSHES FOR FLORISTS.

Contracts made now at very Reasonable Rates for any of following Roses from 2 1-2 or 3-inch pots, for Delivery by May 15, 1890.

WE SHALL HAVE THEM BY THE MILLION.

NEW ROSES:

Wootton,
Duchess of Albany,
Madame Hoste,
Luciole,
Watteville,
And all the New
varieties of 1889.

OLDER VARIETIES:

Perle,
Puritan,
Bride,
Mermet,
La France,
Papa Gontier,
Cusin.

Our Rose Buds of WOOTTON and all above varieties are very good now.

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ROSES.

Healthy young plants in 2 and 2½-in. pots.
Perle des Jardins, La France,
Niphetos, Catherine Mermet,
Sunset, Safran,
The Bride, Papa Gontier,
Cornelia Cook, Isabella Sprunt,
Bon Silene, Ophelia,
Sombreuil, Malmaison,
Souvenir d'un Ami, Etiole de Lyon,
Mme. Scipion Cochet, Duchess de Brabant,
Arch Duke Cochet, Marie Guillot,
Marie van Houtte, La Princesse Vera,
Dr. Grill, Mme. Welch,
Luciole, Mme. Lambert,
Bosanquet, Musk Cluster,
Adam Tea, Lawencia,
Duchess of Edinburgh, Homer,
La Pactole, Louis Philip,
Mme. Margottin, Mlle. F. Kruger,
Honorable, Edith Gifford,
Caroline Kuster, Agrippina,
Empress Eugenie, and other varieties. Price, \$4
per 100; \$35 per 1000.

Mme. Charles Wood, Magna Charta,
Paul Neyron, Queen of Bedders,
Gerard Des Boies, Jacqueminot, \$5 per 100.
Large plants of the above named varieties, \$15
to \$18 per 100. ADDRESS

A. LAUER,
1210 East Broadway, LOUISVILLE, KY.

ROSES.

A very large stock of young Roses of the leading bedding and forcing varieties. Also large stock of same in 3 and 6-inch pots.
The best and newest of CHRYSANTHEMUMS, CARNATIONS and general greenhouse stock.
Trade list mailed on application.

JACOB SCHULZ,
Louisville, Ky.

H. P. AND MOSS ROSES.

2 years, out of open ground, \$30.00 per 1000. Moss, \$10.00 per 100. Tea Roses, out of 3-inch pots, \$1.00 per 100.

If you need any stock, write for it. I will sell at your own prices, if not too low.

E. HIPPAARD,
YOUNGSTOWN, OHIO.

Patentee of the best Ventilating Machinery.

C. M. PRESBY.

CHAS. P. ANDERSON.

JOHN HENDERSON CO.,

Flushing, L. I.

ROSES A SPECIALTY. ROSES.

THE CLIMBING PERLE DES JARDINS.

TO OUR PATRONS, AND THE TRADE GENERALLY:—We are convinced that this Rose will prove of permanent value—indoors and out. Its continuity of flowering, vigorous growth, large flowers, beautiful in color and form—a true Tea—must commend it to all.

Strong plants Ready April 1st, \$1.00 each; \$10.00 per dozen.

All the Old, New and Forcing varieties on hand, at lowest prices.

WRITE FOR CATALOGUES AND PRICES.

METEOR.

No untried novelty, free bloomer, no cropper, long stems, bright color, always brings a fancy price, clean, healthy, and sells itself. This has been our experience with the Meteor the past two years. It is certainly one of the most profitable forcing roses in cultivation to day.

We have a fine stock of the above in 2½ inch pots, at \$8.00 per 100. We can also supply from 2½-inch pots, the following varieties, clean, healthy stock:

	Per 100		Per 100
Perles	\$5 00	Mermets	\$5 00
Papa Gontier	4 00	Niphetos	5 00
Sunset	5 00	Mme. Cusi	5 00
Mme. de Watteville	5 00	La France	7 00
Brides	5 00	American Beauty	6 00

Our Illustrated Catalogue of Plants and Seeds mailed free on application.

L. L. MAY & CO., NURSERYMEN, FLORISTS St. Paul, Minn.
AND SEEDSMEN,

IMPORTED H. P. ROSES,

Worked low on the Manett Stock, offer the best results to the florist, blooming freely and giving plenty of cuttings for propagating quickly. Fine plants for sale by the 100 or 1000, at low rates.

Price Lists to applicants. Address

WILLIAM H. SPOONER,
JAMAICA PLAIN, (Boston), MASS.

100,000 ROSES 100,000

We have doubled our facilities for growing Roses of all sizes, and will be glad to price your lists whenever and whatever you may need.

Three acres under glass. Most complete and most select collection in every department. Send for Wholesale and Retail Descriptive Catalogue.

ADDRESS **NANZ & NEUNER,**
LOUISVILLE, KY.

THE AMERICAN FLORIST

Subscription \$1.00 a year. To Europe, \$1.50.

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Inch, \$1.40; Column, \$14.00.
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No Special Position Guaranteed.

Discounts, 3 months, 5 per cent; 6 months, 10 per cent; 12 months, 20 per cent.

No reduction made for large space.

The Advertising Department of the AMERICAN FLORIST is for Florists, Seedsmen, and Dealers in wares pertaining to those lines ONLY. Please to remember it.

Orders for less than one-half inch space not accepted.

Advertisements for March 1 issue must REACH US by noon, Feb. 24. Address

THE AMERICAN FLORIST CO., Chicago.

SCIENTIFIC EDUCATION FOR FLORISTS.

Unpleasant as it is to admit it, still it must be confessed that there is a great deal of cold truth in Mr. Taplin's remarks regarding the possibility of securing government aid for the establishment of such a school as that desired. If we ever have such a school—where the curriculum shall be confined mainly to those special branches of the sciences which bear particularly upon our profession, it will probably be established by those in the trade for the benefit of the coming generation. Is there not some one in the trade possessed of sufficient wealth and interest in the future welfare of the profession to endow such an institution and thereby leave a lasting monument to his name.

Such a school properly directed is undoubtedly what we want, but it will be realized, if at all, only in the distant future, and in the mean time something is wanted for the young men of the present generation, and wanted now. We believe that our correspondent J. H. H. hit the target close to the bull's eye in his communication under the heading of "Education wanted," on page 204 of our December 15 issue. Many may have thought that the communication in question was written by some well educated man for the purpose of discussion, but such is not the case. It was a genuine appeal from a young man of limited education for information as to what he should study to receive the most benefit, and we have been anxiously looking for replies from our readers who have given the matter thought and who have some familiarity with the subject. Such an appeal should not be ignored. It is such men as our correspondent that we should aim to help above all others, for he has a solid foundation to build upon—a thoughtful mind and industrious disposition, and without these essentials in the student instruction is largely wasted.

The young man who is going around with a great big interrogation point in his brain is the one we can help and help now. And if there is enough of the interrogation point, coupled with industry, he will get there all right if you will only properly direct him that he may not expend his effort in the wrong direction and become discouraged. This can be given now and there should be no delay. The pages of the FLORIST are open for suggestions, and for articles upon scientific subjects related to practical work. And lots of young men with an abnormally large development of the interrogation point are ready to receive the benefit. They have noted effects and are anxious to learn the cause. Give them the tools to work with and they will soon be solving problems for themselves.

IT WILL BE hardly necessary for us to say that we are heartily in accord with

Mr. Copeland in his pointed article upon "How and why some men make money and others do not." The FLORIST has time and again called the attention of the trade to the necessity of better business methods than those now existing, and to the almost entire absence of system in a large majority of greenhouse establishments. Have you taken advantage of the many valuable suggestions which have been made in these columns? Do you know what it costs you to produce each of the plants and flowers that you grow? If you do not how can you tell when you are selling them for less than they cost you? Are you working intelligently or are you groping in the dark?

NOMENCLATURE.—As will be seen by the communications in another column new life has been infused into the S. A. F. Committee on Nomenclature, and it is to be hoped that every member of the trade will feel it his duty to assist the committee to the full extent of his power. The necessity for work is admitted by all, a practical plan for making the work effective has been presented, and with the assistance of the trade in general it will be executed. Will you do your share?

RAISING NEW VARIETIES.—We learn that the set of seedling carnations raised by Mr. Fred Dörner, La Fayette, Ind., and recently commented upon in these columns, has been purchased by Messrs. Hill & Co., Richmond, Ind., for \$500. There is profit as well as satisfaction for the grower of improved varieties.

SPECIMEN BLOOMS of a seedling carnation from Garfield N. E. G. Hill, has been received from Nathan Smith & Son, Adrian, Mich. The color is good and it is extra large in size, but it bursts the calyx badly.

WE HAVE in hand and shall publish in next issue interesting papers read before the Florists' Clubs of Boston and Philadelphia.

OUR NEW DIRECTORY of the florists, nurserymen and seedsmen of the United States and Canada is now ready. Price \$2.

Catalogues Received.

L. Green & Son, Perry, O., nursery stock; John Laing & Sons, Forest Hill, London, England, seeds and plants; N. S. Griffith, Independence, Mo., plants; Wm. Toole, Baraboo, Wis., seeds; James J. H. Gregory, Marblehead, Mass., seeds; H. G. Faust & Co., Philadelphia, seeds; Green's Nursery Co., Rochester, N. Y., nursery stock; A. D. Cowan & Co., New York, seeds; Schultheis Bros., Steinfurth, Germany, roses; Iowa Seed Co., Des Moines, Ia., seeds; V. Doppie, Erfurt, Germany, seeds and plants; J. Lambert & Son, Trier, Prussia, seeds; I. N. Kramer & Son, Marion, Ia., plants; John A. Bruce & Co., Hamilton, Ont., seeds and bulbs; Hans Nielson, St. Joseph, Mo., plants; W. Piercy, Forest Hill, London, S. E. England, chrysanthemums; J. A. Simmers, Toronto, Ont., seeds; F. W. Ritter, Jr., Dayton, O., seeds; Geo. W. Miller, Chicago, plants; W. B. Hartland, Cork, Ireland, seeds; John Henderson Co., Flushing, L. I., roses; W. H. Capell, Newbern, Tenn., plants; August Kolker & Sons, New York, flower seeds; J. T. Lovett Co., Little Silver, N. J., nursery stock; Chas. T. Starr, Avondale, Pa., plants and bulbs; A. M. & J. B. Murdoch, Pittsburg, Pa., plants, seeds and nursery stock.

Letter From Mrs. Henderson.

Secretary Stewart sends us the letter received from Mrs. Henderson in acknowledgment of the floral tribute sent in the name of the national society to the funeral of the late Peter Henderson. We give it below:

ARLINGTON AVE., JERSEY CITY HEIGHTS.
Society of American Florists.

Allow me to thank you for the beautiful token of esteem which you sent in remembrance of my late dear husband, Peter Henderson. I can not put into such heartfelt or eloquent words as he could have done, our great appreciation of your kindness.

I remain very gratefully however,
Yours sincerely,

JEAN H. HENDERSON.

January 22, 1890.

Peter Henderson's Will.

The will of Peter Henderson, the millionaire florist, who died at his home in Jersey City a few weeks ago, has been filed at the office of the Secretary of State and has been admitted to probate by the Chancellor in his capacity as ordinary. The will gives to Mr. Henderson's widow the homestead on Arlington avenue, Jersey City; the household goods, stable, carriages, horses, etc., \$30,000, the royalties and income from the several works he published and \$3,000 per annum, and charges the annuity against the rents of eleven houses enumerated. He gives to his son Alfred the store No. 37 Cortlandt street and the land on which it stands, and to his son Charles the other half of the double store No. 35 Cortlandt street with the land. His gift to his daughter Isabel, wife of Robert M. Floyd, is 18 houses on Union street, Jersey City. At her death one-third of the property goes to her daughter Ruth, and the other two-thirds are divided between his sons, Alfred and Charles. The executors are directed also to set apart and invest \$30,000 and pay the income to his daughter Isabel. He also stipulates that she is to receive \$25,000 within two years.

He gives to his two sons his seed business and the use for ten years of his plant and florist business on Arlington avenue, Jersey City. The residue of the estate is to be divided equally between his three children, the two sons to have their share without reserve, but the daughter's is to be held in trust, and she is to receive the income. The executors are his sons, Charles and Alfred. The will is dated July 12, 1889, and was witnessed by ex-Mayor Collins and his law partner, William H. Corbin.—*New York Herald February 2*

LATE CHRYSANTHEMUMS.—On New Year's eve we cut three dozen very fine Mrs. F. Thompson chrysanthemums; on the 8th of January cut some very fine Elks Horn, and on the 18th cut the last of Mrs. F. Thompson. How is that for Western Kansas? S. H. B. Abilene, Kan.

YOUR SPRING TRADE LIST should be published in this paper, to do you the most good. And the cost will be less.

C. STRAUSS & CO.

Telephones 977 and 999.

WASHINGTON, D. C.

ROSE BUOS IN ANY QUANTITY SHIPPED
ON TELEGRAPHIC ORDERS.

See our Large Advertisement on page 309.

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20 West 24th Street,

NEW YORK.

LILY OF THE VALLEY,
And the Choicest ROSES for the
fall and winter season.

W. S. ALLEN, WHOLESALE DEALER IN CUT FLOWERS,

36 EAST 23rd STREET, NEW YORK.

ESTABLISHED 1877.

Price List sent upon application.

W. F. SHERIDAN, Wholesale and Commission Dealer in CUT FLOWERS,

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Orders to be shipped will receive prompt attention.

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34 WEST 29TH STREET,

The Bride, Mermets,
and Am. Beauties,
SPECIALTIES. NEW YORK.

ROSS & MILLANG, WHOLESALE FLORISTS,

No. 1168 Broadway,

Bet. 27th & 28th Sts., NEW YORK

HAMMOND & HUNTER, WHOLESALE DEALERS IN

CUT FLOWERS,

51 West 30th St., NEW YORK.

LaRoche & Stahl, Florists & Commission Merchants

—OF—

CUT FLOWERS,
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Consignments Solicited. Special attention paid to
shippings. Mention AMERICAN FLORIST.

CHAS. E. PENNOCK, WHOLESALE FLORIST

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AND JOBBERS IN FLORISTS' SUPPLIES,
1 Music Hall Place, BOSTON, MASS.

Also entrance from Hamilton Place
through Music Hall.

We keep a large supply of Fancies and Carna-
tions always on hand. Return telegrams sent
immediately when unable to fill orders.

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Mention American Florist.

Wholesale Markets.

Cut Flowers.

BOSTON, Feb. 10.	
Roses, Bon Silene.....	\$4.00 @ \$5.00
" Perle, Sunset.....	8.00 @ 12.00
" Mermets, Bride.....	12.00 @ 16.00
" Gontiers, Niphetos.....	6.00 @ 8.00
" Wootton, La France.....	12.00 @ 16.00
" Jacqs, Hybrids.....	25.00 @ 35.00
Valley, Ronnette.....	4.00
Violets.....	1.00
Dafodils, Tulips.....	4.00 @ 5.00
Narcissus, white.....	4.00
Mignonette.....	3.00
Callas.....	12.00 @ 15.00
Harrisii.....	15.00 @ 20.00
Carnations, short.....	2.00
Carnations, long.....	2.00
Azaleas.....	1.50
Bouvardia.....	1.50
Adiantums.....	1.50
Smilax.....	12.50
Heath, per bunch.....	50 @ 75

PHILADELPHIA, Feb. 10.	
Roses, Am. Beauty.....	\$35.00 @ 35.00
" La France.....	12.00 @ 16.00
" Mermets, Bride.....	10.00 @ 12.00
" Cousins, Waterville.....	8.00 @ 10.00
" Gontiers.....	6.00 @ 8.00
" Bennetts.....	8.00 @ 10.00
" Perles, Niphetos.....	4.00 @ 6.00
Carnations, long.....	2.00 @ 2.50
Carnations, short.....	1.50 @ 2.00
Valley.....	2.50
Romans, narcissus.....	4.00
Tulips.....	4.00 @ 5.00
Smilax.....	15.00 @ 20.00

NEW YORK, Feb. 10.	
Roses, Bon Silene.....	\$4.00 @ \$5.00
" Gontiers, Sunset.....	8.00 @ 12.00
" Perles, Niphetos.....	6.00 @ 8.00
" Mermets, Bride.....	10.00 @ 12.00
" Hostes, Cousins, Waterville.....	8.00 @ 10.00
" Bennetts.....	8.00 @ 10.00
" La France.....	12.00 @ 16.00
" Albany.....	15.00 @ 20.00
" Beauties.....	7.00
" Jacqs.....	20.00 @ 25.00
" Hybrids.....	50.00 @ 75.00
Smilax.....	20.00 @ 25.00
Carnations, long.....	2.00 @ 3.00
Mignonette.....	3.00 @ 10.00
Roman hyacinths.....	4.00
Narcissus, Tulips.....	4.00
Valley.....	4.00 @ 5.00
Violets.....	1.50
Harrisii.....	20.00
Adiantums.....	1.50

CHICAGO, Feb. 12.	
Roses, Perles, Niphetos.....	\$5.00 @ \$7.50
" Gontiers.....	5.00 @ 7.00
" Bon Silenes.....	4.00 @ 5.00
" Mermets, La France.....	7.00 @ 10.00
" Brides.....	8.00 @ 12.00
" Bennetts, Dukes.....	8.00 @ 10.00
" Am. Beauties.....	15.00 @ 20.00
" Jacqs.....	16.00 @ 25.00
Carnations, short.....	1.25 @ 1.50
Carnations, long.....	2.00 @ 3.00
Smilax.....	15.00 @ 20.00
Narcissus, tulips.....	4.00 @ 5.00
Romans.....	2.00 @ 3.00
Valley.....	4.00 @ 5.00
Violets.....	1.00 @ 1.50
Calas.....	12.00 @ 15.00
Adiantums.....	1.00 @ 1.25

WM. J. STEWART, Cut Flowers & Florists' Supplies

WHOLESALE

67 BROMFIELD ST., BOSTON, MASS.

HEATH Now Ready.

GEO. MULLEN, WHOLESALE FLORIST,

Florists' Supplies Always in Stock.

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(Off School St., near Parker House).

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Orders by Mail, Telegraph, Telephone or Express
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Wholesale specialty of shipping choice Roses and
other Flowers carefully packed, to all points in
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Return Telegrams in sent immediately when it
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The choicest Cut Flowers at lowest market rates
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Code when ordering by telegraph. For prices, etc.,
Address,

I. L. DILLON, BLOOMSBURG, PA.

HUNT & MARKURTH, Successors to

VAUGHAN'S CUT FLOWER DEPT.

79 LAKE STREET, CHICAGO.

We are now located in our new store,
and ready to attend to the needs of Cut
Flower buyers in a satisfactory manner.

OPEN DAILY: Week days till 9 P. M.
Sundays till 2 P. M.

KENNICOTT BROS., WHOLESALE FLORISTS,

27 Washington Street, CHICAGO.

We always have choice, Fresh Cut Flowers in season.
The best packers in the trade. Orders promptly
shipped. Store open until 9 P. M. Sundays un-
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WIRE WORK A SPECIALTY.
Extra designs made to order. Write for price list.
Consignments Solicited. Telephone 406.

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AND DEALER IN

FLORISTS' SUPPLIES,

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Store Open Day and Night.

I keep a full stock of
WIRE DESIGNS

of superior workmanship and at lowest prices. Ex-
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CUT ROSES AT WHOLESALE.

The only establishment in the west growing
Cut Roses exclusively.

CUT, PACKED AND SHIPPED THE SAME DAY.

Only handled once, then by experienced per-
sons. All packages delivered on trains, thus
enabling parties at a distance to get fresh Cut
Roses.

Orders by Mail or Telegraph promptly at-
tended to.

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O. W. FRESE, WHOLESALE DEALER IN CUT FLOWERS

And Florists' Supplies.

89 Wabash Ave., CHICAGO.

JOHN M. HUDSON, WHOLESALE

Commission Dealer in Cut Flowers,

1225 Market St., ST. LOUIS, MO.

Quick sales and prompt returns guaran-
teed. Consignments solicited.

CUT FLOWERS AND WIRE WORK AT WHOLESALE.

THE WISCONSIN FLOWER EXCHANGE,
133 Mason Street, MILWAUKEE, WIS.

Re Seed Trade.

SEED TRADE ASSOCIATION.

H. W. JOHNSON, Philadelphia, president; ALBERT M. McCLELLON, Cincinnati, secretary and treasurer. The eighth annual meeting at Saratoga Springs, N. Y., June, 1890.

Mr. J. E. NORTHRUP has returned from California.

SANTA CLARA, California seed firms are reported to have suffered by recent floods.

R. T. THOMPSON, proprietor of the Island Seed Company at Muscatine, Ia., died February 1.

THE MAIL TRADE with those strictly in vegetable seeds is reported so far no better than last year, while some firms who are in the plant trade as well report an increase over 1889 of from 15 to 25 per cent.

From Canada.

It was with deep sorrow that the Canadian florists learned of the death of Peter Henderson. No man in America was better known among the Canadian flower lovers than the deceased. Your loss is our loss, and you have our deepest sympathy. I have known Peter Henderson for nearly twenty years by having dealings with him, also through his works on horticulture. I did not know him personally until the recent convention of American Florists at Buffalo. I well remember the hearty laugh when I told him the story about the "Moon flower man." A gentleman who had forgotten his name called him the "Moon flower man of New York." I believe that Peter Henderson was as well known in Canada as in any state in the Union. Flower lovers know no flag, no nation, no language, but are one family bound together with a love for the beautiful in nature. Go slow. Perhaps the American friends think we Canadians are slow enough now. If Peter Henderson & Co.'s firm is an example of the terrible strain upon the members of business firms we had better remain slow. The price is too high. The game is not worth the shot.

A. GILCHRIST.

The First Gardening and the First Bouquet in Chicago.

Any one trying to learn somewhat about the early condition of gardening in any city in this country will find the data rather meager to go on. The first dug out, log hut, grain shipped, vessel to arrive, railroad, telegraph and the like is not difficult to hunt up, but who planted the first tree, laid out a good garden or who was noted for their liking to Adam's first calling is not so easily discovered after some lapse of time, and one has to depend upon the written memoranda at command.

But if the cases noted are not the first in their respective lines in Chicago we should be pleased to know of the earlier record.

Miss Harriett Martineau travelled through the United States in 1836, and in the progress of that trip made the journey from Niles, Mich., to this city. In her work "Society in America" of that time she says, "on my arrival in Chicago a fancy fair was going on, being too much fatigued myself to attend, the ladies sent me a bouquet of prairie flowers." Think of that ye florists of this city of 1890.

In the American state papers for 1818, military affairs, Vol. II, page 265, occurs the following, under the head of "Regula-

tions of the army:" "A more extended cultivation will be commenced at Chicago and other posts, of the cultivation of any public land not otherwise appropriated, in the vicinity of the garrisons and posts, shall be carried on by the troops, under the direction of the several commandants of the posts, and will embrace the bread and other such vegetable part of the rations."

The beginning was certainly quite modest, except that the one word vegetable might easily include a pretty large variety and yet come within the iron rules of military orders. EDGAR SANDERS.

PRINT your spring trade list in next issue and send copy to us early.

HYDRANGEA OTAKSA, 3 in. pots, \$5 per 100; \$40 per 1000.

GRACE WILDER, healthy stock at \$3 per 100.

GERANIUMS:

Gen. W. S. Hancock, 2 3/4-in. pots, \$4 00

Mme. Thibaut, 2 3/4 inch pots, - 4 00

H. W. Longfellow, 2 3/4-inch pots, - 4 00

Gen. Grant, 2 3/4-inch pots, - 3 00

W. A. BOCK,
NORTH CAMBRIDGE, MASS.
Mention American Florist.

WINTER BLOOMING

AZALEAS

BEAUTIFUL SHAPED PLANTS. ALL SIZES.

GABRIEL MARC & CO.,

Queens Co. WOODSIDE, L. I., N. Y.

TUBEROUS BEGONIAS (SINGLE) Trade Pkt. \$1.00

PRIMULA OBCONICA, - 1.00

GLOXINIAS, - - - 1.00

6 Packets, \$5.00.

FISHER BROS. & CO.,
NEW ENGLAND NURSERY. MONTVALE, MASS.

Healthy Plants at Bottom Prices.

Per 100
Smilax, in 2-inch pots, \$3.00; 2-inch pots..... \$2.00
Aceratum, White Cap, Blue Cape, 2 1/2-in. pots... 2.25
Mme. Sallier (Geranium), 2 1/2-in. pots..... 2.50
Cinerarias, select, 2 1/2-in. pots..... 2.50
Feverfew, White Gem and Golden, 2-in. pots... 2.25
Cuphea, or Clear Plant, 2-in. pots..... 2.00
Fuchsias, Storm King, Black Prince..... 2.50
Columb. 16 standard sorts..... 2.25
Heliotrope, 3 standard varieties..... 2.00
FABER BROS., Kankakee, Ill.

ONE HUNDRED THOUSAND

A No. 1 healthy MARIE LOUISE VIOLET RUNNERS, for sale at \$6.50 per thousand, to all who mention this paper. Orders filled in rotation for immediate delivery.

E. KOFFMAN,
WALDEN, Orange Co., N. Y.

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American Florist Company's

DIRECTORY.

OF

{ FLORISTS,
NURSERYMEN,
AND SEEDSMEN,

OF THE

UNITED STATES AND CANADA.

FOR 1890
NOW READY.

Price, \$2.00.

SEND IN YOUR ORDERS.

The new book is a very great advance upon the old one, as we have covered the whole country by correspondence and obtained original lists of those in the trade in every city and town in the United States and Canada. We believe that the list is now as nearly correct as it is possible to get it.

AMERICAN FLORIST CO., 54 La Salle St., CHICAGO.

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are those put up by

D. M. FERRY & CO.

Who are the largest Seedsmen in the world.

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Illustrated, Descriptive and Priced

SEED ANNUAL

for 1890 will be mailed FREE to all applicants, and to last season's customers.

It is better than ever. Every person using Garden, Flower or Field Seeds should send for it. Address

D. M. FERRY & CO.

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TRY DREER'S

GARDEN SEEDS

Plants, Bulbs, and Recultives. They are the best at the lowest prices. TRADE LIST issued quarterly mailed free.

HENRY A. DREER,

Philadelphia

ROSES.

Good strong young 2-inch pot plants at \$30 per 1000; strictly my selection of Teas, Hybrid Teas, and Noisettes, true to name and good varieties, from last summer's propagation.

Gen'l Jacqueminot, at \$5 per 100, \$40 per 1000.

GERANIUMS.—Good varieties, my selection, at \$30 per 1000. Single and double. Mme. Salleron, at \$3 per 100. ROSE GERANIUMS, \$3 per 100.

FERNS.—Adiantum Cuneatum, and Adiantum Decursum, from 3-inch pots, at \$8 per 100.

LATANIA BORONICA.—5-inch pot plants, at \$4 per dozen; 2-inch pot plants, \$3 per dozen.

AMPELOPSIS VEITCHII.—One year old plants, at \$6 per 100.

PRIMROSES.—Single, 4-in. pot plants, \$8 per 100. Ochoquina, 5-inch pot plants, \$1.80 per dozen.

FUCHSIAS.—Good varieties, 2-in. pots, \$3 per 100.

CYTISUS RACEMOSUS.—Strong, 5-in. pot plants, \$3 per doz. Strong 4-in. pot plants, \$4.25 per doz.

VINCA VARIEGATA.—2 in. pot plants, \$3 per 100.

HARRISONII, 2-in. \$3 per 100.

PETUNIAS.—Double, 12 varieties, at \$4 per 100.

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The best Christmas Present for a working florist will be "Floral Designs," the help for cut flower workers. Write about it to J. Horace McFarland, Box 55, Harrisburg, Pa.

COMMERCIAL NURSERIES,

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We offer for spring shipment, a large and carefully cultivated stock of Norway Spruce, Austrian and Scotch Pine, Norway Maple, Silver Birch, Scotch Elm, European Alder, Ash, Beech, Linden, Laburnum, Mountain Ash, Purple Beech, New Golden Maple and Elms, Golden Spruce, Golden, Silver and variegated Elms, Rhododendrons, Rhod. Gossamer-leaved Elms, Rhododendrons, Rhod. Gossamer-leaved Elms, etc. All sizes of No. 1 quality at lowest prices.

JOHN PALMER & SON.

CONTRACTS TAKEN

To Grow Seeds and Bulbs for Florists.

Mammoth Verbena Seed trade pkt. 40 cts.

Giant Perfection Stock trade pkt. 25 cts.

Cosmos, white or mixed per oz. 50 cts.

Facily plus, by mail \$1.50 per 100.

S. LENTON, Seed and Bulb Grower,

PIRU CITY, Ventura Co., CAL.

COLEUS

VERSCHAFFELTII, GOLDEN BEDDER, J. GOODE, ETC. Per 100 Per 1000

Rooted Cuttings 90c. \$7.50

Alternanthera, yellow 90c. 5.00

Heliotrop 90c. 7.50

JOHN J. CONNELLY, Bryn Mawr, Pa.

Rooted Alternanthera & Coleus Cuttings
Alternanthera Versicolor and aerea nana compacta, \$1.00 per 100.
Coleus Verschaaffeltii & Golden Bedder, \$1.25 per 100.
JOHN B. FERGUSON, Florist, E. E. Pittsburgh, Pa

THE "PLANET JR"

HORSE: 110E has a world-wide fame, and its hosts of friends are delighted with its improvements for 1890. First LEVER EXPANDERS Instantaneous in action, firm, strong, simple, accurate, perfect. HANDLE ADJUSTMENT Side and top levers, quick, stiff, grand for grapes, extra and in covering PARALLEL FRAME Standards interchangeable, STRONG, neat, CONVENIENT, admirable. We absolutely guarantee our 1890 Horse Hoe and continuations, and new patented features to please every practical farmer and gardener, and their money value to be far greater than ever. Look at it, and write us. *Continued free.* The "PLANET JR" has a "Fire Fly" plow, 40 in. wide, 10 ft. long, and a "Fire Fly" hand SEED DRILL, S. Double and Single Wheel Hoes, new and depth, difficult and easy seeds in small or large quantities, and under special care. In market gardening the Wheel Hoe saves their cost every few days. The "Fire Fly" Garden Plow is a delight in the family vegetable garden. The "Planet Jr." southern Seed Drill, which Hoe, Cultivator and Plow combines in an admirable way the qualities of all the rest, being delightful as a Seed Drill, Double Wheel Hoe while plants are small, Single Wheel Hoe, Cultivator—deeper or shallower, and Garden Plow. All the blades of these famous hand tools have long been made of hardened polished steel. Keep them bright and sharp, and you will save the full cost every few days. Send for full Descriptive Catalogue of all our goods. Write us your wants.



S. L. ALLEN & CO., Sole Mantles, 1197 Market St., Philadelphia, and true.

1890.

THE PUBLIC WANT

Would they not be most likely to obtain such by buying directly from the grower? I can buy seed at half what it costs me to raise it, but could not sleep sound should I warrant seed of this quality. Hence the reason I make special effort to procure seed stock directly from their originators. You will find in my new seed catalogue for \$20 (sent free from the usual price) an extensive collection (with the prices of some kinds lower than last season) and the really new vegetables of good promise. You should be able to get from me, Hubbard Squash, All Seasons and Deep Head Cabbages and many other valuable vegetables, which have been introduced by JAMES J. H. GREGORY, Marblehead, Mass.



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OLD AND RELIABLE, LARGEST AND MOST COMPLETE Assortment of Nurseries and Greenhouses in the State. Stock in America. In BUDDED APPLES and STANDARD PEARS they acknowledge no competition—quality considered. Nurserymen and Dealers will consult their own interests by getting prices on this SUPERB STOCK before buying. *Best special inducements to buyers in large quantities.*

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White Asters, Giant Market and Fancy Pansies, Perpetual White Stocks, Giant White Candytuft.

Also a limited stock of SCARLET ASTERS (Ia Brilliant), and the blue variety.

Trade packet of any of the above at 10 cts. each.

(Our White Aster, of the Multiflora class, is an improved Victoria, earlier and twice as prolific.)

DENYS ZIRNGIEBEL,

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500,000 EVERGREEN CUT FERNS ESPECIALLY FOR FLORISTS' USE.



FANCY. DAGGER

These Ferns are of a beautiful dark green color, from 10 to 20 inches long, and will keep fresh for several weeks. They are used for Bouquet and Basket work, etc. They are also used extensively at Easter for Altar Decoration.

\$1.50 per 1000 Ferns. Discount on large orders.

Special attention paid to supplying the Wholesale Trade. Write for prices.

500 BBS. SPHAGNUM MOSS, green or grey, 2100 per bbl., or 6 bbls. for \$5.00. Write for terms on large lots.

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The largest and best assortment of TROPICAL PLANTS, FLOWERS and SEEDS in the Island of Cuba. Direct to

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Calle Dominguez, No. 17, Cerro, HAVANA, CUBA.

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FERNS. FERNES. FERNES.

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Alabama Fancies, Eastern Fancies, Daggers, Polypodium.

In assortment of otherwise, per single thousand, \$2.00; 2000 \$3.50; 5000 \$7.50. Express charges prepaid to any address.

CALDWELL, THE WOODSMAN, EVERGREEN, ALABAMA.

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Special attention given to the care of lots in Greenwood Cemetery.

Florists knowing of persons who have plots in Greenwood Cemetery which they want cared for, and who will send such to me send them will be given a commission of 10 per cent. on the order.

Foreign Grape Vines for Graperies.

Splendid 1 and 2 year old vines, true to name, grown by an expert. List of varieties and prices mailed on application. HENRY A. DREER, 714 Chestnut St., Philadelphia, Pa.

MRS. J. S. E. THOMPSON offers her services, to collect native herbaceous plants for trade. Cunila mariana, Cypridium acule, Trillium Gentiana Andrewsii, etc., at \$2.50 per 100 plants, \$20.00 per 1000. List furnished of other varieties.

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VENTILATOR MACHINERY

FOR ALL CLASSES OF GREENHOUSES, EITHER FOR TOP OR SIDES.

Awarded the only Certificate of Merit at Buffalo Convention. PATENTED DEC. 10, 1889.

Write for Catalogue before ordering elsewhere.

E. HIPPARD, Youngstown, O.

SURPLUS STOCK PLANTS

For Florists. Per 100

Hydrangea Otakus, etc. strong, 3-inch pots, \$ 7.00

Hydrangea, 6 sorts, extra strong, 4-in. pots, 10 00

Dahlia, 20 sorts, dry roots, pot grown, 5 00

Davies, English, white, red, pink, 3 per 100, 1 00

Saxifrage, strong plants, 2-inch pots, 2 50

Asparagus tenuissimus, strong, 2-in. pots, 3 00

Reichman, 10 sorts, 2 1/2-inch pots, 3 00

Geraniums, best dbl. and scd. strong, 2-in. 3 50

Fuchsias, 20 best sorts, 2 1/2-inch pots, 3 00

Send for Trade List.

PAUL BUTZ & SON, New Castle, Pa.

HEADQUARTERS FOR LYCOPODIUM, Dry Baled Sphagnum Moss, and CHRISTMAS TREES—AM. SPRUCE.

Buy from first hands and save middle men's commission. Write for prices.

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SPECIAL OFFER —OF— SEASONABLE BULBS

We are the largest growers in the country of the following Bulbs and are in a position to give satisfaction both in quality and price. Small lots of all but Tuberoses can be sent safely and cheaply by mail.

BEGONIAS, TUBEROUS ROOTED VARIETIES IN COLOR

SCARLET, PINK, ORANGE,
WHITE, CRIMSON, YELLOW,

\$1.50 per dozen; \$12 per 100; \$100 per 1000

Single Mixed varieties in all colors, \$1.25 per doz.;

\$10.00 per 100; \$80.00 per 1000

Double Mixed varieties in all colors, \$4.00 per doz.,

\$40.00 per 100.

GLOXINIA *Crasiflora Grandiflora*,

In twelve distinct varieties, named, \$2 per doz; \$12 per 100. In splendid mixture, all colors, \$1.50 per dozen; \$10.00 per 100.

CALADIUMS, Fancy Leaved Varieties

In 50 best and newest varieties, fine, well matured bulbs to name, \$2 per doz; \$15 per 100; \$125 per 1000.

TUBEROSE, Pearl and Double,

First size, flowering bulbs, \$1.50 per 100; \$12 per 1000.

HENRY A. DREER, Philadelphia.

Mention American Florist.

Association Flora, Boskoop, Holland.

NOW ON HAND IN NEW YORK:

25,000 Dwarf budded Roses in sorts.

3,000 Rhododendrons in sorts.

3,000 Azalea Mollis and Pontica in sorts.

2,000 Clematis, extra strong plants.

Trees, Shrubs, Evergreens, Conifers, Paeonias and other herbaceous plants.

PLANTS FOR FORCING AND DECORATING.

Address P. OUWERKERK,

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Catalogue on application.

TO THE TRADE.

HENRY METTE,

Seed Grower and Merchant,

QUEDLINBURG, GERMANY.

(ESTABLISHED 1857.)

Will be pleased to quote special prices for garden, agricultural and flower seeds saved at his extensive grounds, which cover more than 400 acres.

Wholesale Catalogue free on application.

NEW PRIMULA OBCONICA SEED CROP

Packet (about 1000 seeds) \$1.00

PRIMULA FLORIBUNDA, pkt (100 seeds) 25c.

PRIMULA OBCONICA PLANTS, from 3 & 3½-

inch pots, \$1.25 per doz.; \$10.00 per 100.

PRIMULA FLORIBUNDA, 2-inch pot plants,

60 cts. per doz; \$4.00 per 100.

I. N. KRAMER & SON, Marion, Iowa.

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HILLEGOM, HOLLAND.

LARGEST GROWERS OF

HYACINTHS, TULIPS, NAR-

CISSUS, SPIRÆA, LILIES

OF THE VALLEY, ETC.

Headquarters for Forcing Bulbs. Wholesale Importers should write us for prices.

Mention American Florist.

Dahlias. Cyclamens.

DAHLIAS, heavy, sound roots in 75 choice kinds suitable for propagation, all colors, at \$1.25 per dozen; \$8.00 per 100; \$75.00 per 1000. Also a

choice mixed lot, \$5.00 per 100; \$40.00 per 1000.

CYCLAMENS, 3½-inch pots, \$1.00 per dozen;

\$8.00 per 100.

F. A. BALLER, Bloomington, Ill.

TREES

Best sorts, New and Old. Fine blocks of home-grown std & dwarf Pear, Plum, Peach and Apple, on peach, on plum and Mariana roots; Cherry Quince, Apple and

Budded; Mulberries, Grapes, Small Fruits, Roses, Evergreens, Ornamentals, Root Grafts—Every-

thing. No larger stock in U.S. No better. No cheaper.

PIKE CO. NURSERIES, LOUISIANA, MO.

V. M. HALLOCK & SON'S

Trade List of

Florists' Seeds, Etc., Ready Jan. 1st,

AND MAILED TO THE TRADE. (If not received by Jan. 10th, write us.)

Complete List of all the New

CHRYSANTHEMUMS,

As well as the 400 varieties we carry constitute the largest and best collection in this country. NEW DAILIAS, CANNAS, BULBS, ETC.,

MAILED ABOUT JAN. 15.

NEW PANSIES FOR EXHIBITION PURPOSES. NEW ASTER "DWARF QUEEN," FINEST FOR FLORISTS' USE.

Fresh COBEA, SALVIA, PYRETHRUM, CENTAUREA, SMILAX, PETUNIA, Etc.

V. H. HALLOCK & SON,
QUEENS, N. Y.

HYACINTHS, TULIPS, NARCISSUS, LILIES, ETC.

We should like now to get into Correspondence with Florists and Importers of Bulbs, about orders for Holland Bulbs.

SEGERS BROTHERS,
WHOLESALE BULB GROWERS,
LISSE, Haarlem, HOLLAND.

Mention American Florist.

SYNDICATE OF GROWERS

—) OF (—

FLOWERING BULBS, OLLIOULES, VAR, FRANCE.

We have the honor to inform the Seedsmen that from this year on the Syndicate will export its own products.

Heretofore, the bulbs have been sold to local merchants who have by common consent taken enormous profits, etc., in consequence of which advance in prices Foreign houses have decreased their orders.

As in future the growers can deal direct, Seedsmen will be able to purchase WHITE ROMAN HYACINTHS at exceedingly LOW PRICES.

Leaky Joints.

I wish to inquire as to the best method of effectually stopping leaks at joints of 4-inch hot water pipes. Of course I mean while the water remains in the pipes. Some of the joints were made of cement, and others of hemp packing and red lead. I would also like to know whether it is a common occurrence for two or three joints to leak in long runs of hot water pipes, caused by the expansion and contraction of the pipes, during very cold weather, when we have a very hot fire during the night and none much during the hot sunshiny days. Or if the joints are put together properly. Is there any necessity for their leaking at all? Perhaps some of your numerous subscribers, who have had experience, can inform me. W. H. HUMFELD.

Independence, Mo.

DAHLIAS.

Per 1000
Large field grown roots in 60 choice varieties of large-flowered, Pompon, Single and Cactus, white roots.....per 100 \$10.00, \$80.00
4. L. A. P. H. I. O. L. in splendid mixture, mostly light colors.....per 100 \$1.75, 15.00
TUBEROSE.....Pearl first-class.....15.00
Double, first-class.....15.00
Ampelopsis Veitchii, strong 2 year plants.....Per 100
From 6-inch pots.....\$10.00
Hydrangea Poniculata Grandiflora, strong, thrifty stock, 3 to 3½ feet.....12.00
" 2½ to 3 feet.....10.00
Canna Ehemanni, strong.....8.00
Canna in variety, fine assortment.....5.00
Chrysanthemum Maximum. One of the finest new hardy herbaceous plants, blooming from July until frost, fine for cut flower or pot cut. 10.00

PALMS.

Lafania Borbonica, 2½ inch pots.....7.00
" 4 in. pots, 10 to 12 in. high.....10.00
" 4 in. pots, 15 to 18 in. high.....35.00
1 and 2 character leaves.....25.00
" 2½ in. 3 to 4 leaves.....Per doz. 5.00
Chamerops Excelsa, 4 in. pots, 10 to 12 in. high.....12.00
" 2½ in. 3 to 4 leaves.....7.00
Full stock of New and Standard varieties Roses, Begonias, Coleus, Geraniums, Chrysanthemums, Bedding plants, etc.
Standard Pears in large supply. Finest assortment Fruit and Ornamental Trees, Small Fruits, Shrubs, etc. *See* Spring Catalogues and Trade List ready in January.

THE STORRS & HARRISON CO.,

PAINEVILLE, Lake Co., OHIO.
Mention American Florist.

FLOWER SEEDS

NEW CROP.

STRICTLY FIRST QUALITY.

CENTAUREA GYMNOCARPA, per 1000 seeds, 50c.
" 5 in. pots, 10 to 12 in. high.....\$1.00
" CANDISIMA, per 1000 seeds, 75c
MIGNONETTE MACHET (true) trade pkt. 30c. oz. \$1
" MILLER'S HEART, per 1000 seeds, 1.00
SMILAX.....per oz. \$1.25; lb. \$2.00
TRUFFAUT'S PRIZE ASTER, mixed colors, trade packets, 50c. oz. \$1.50
VERBENA Choicest mixed, from named varieties, trade packet 50 cts.; ounce \$3.00.

For complete list see Dr. Cress's Quarterly List, mailed free to the trade.

HENRY A. DREER,
PHILADELPHIA, PA.

NOW READY.

By Freight or Express. Per 1000
200 Variegated Periwinkle from 3s fine strong plants.....\$2.50 \$3.00
1000 from 2½ well established.....2.00 15.00
By Mail Free.
5000 rooted cuttings in good order.....1.00 8.00
3000 rooted cuttings Gem Foverle (double white).....1.00 8.00
Lantana in choice variety.....1.00 8.00
Mammuth Yellow, large stock, healthy plants, mostly our own seedlings in 20 varieties, named, well rooted and hardened off, ready in February and March.....1.25 12.00
Fuchsia, Heliotropis, Stevins, tall and dwarf; Alyssum, tall double, and dwarf single and double; Paris Daisy.....1.00 8.00
Ageratum, White Cap, and Cape's Gem Forget-me-not, Tradescantia......50 4.00
Geraniums in 20 fine varieties, mostly double, Plumage blue.....1.50 12.00
2500 Pansies, large, beautifully marked and sweet-scented Parisian Beauties.....50 4.00
Pink and light colors.....50 4.00
Yellow selected.....1.00
Bon Mot Pansies, finest selection.....1.50
A valuable new Coleus and new American seedling Chrysanthemum and cream of the older kinds to offer later.

J. C. GIBSON, Woodbury, N. J.

Rooted Cuttings

Of CARNATIONS I can take no more orders excepting for Hinze's or E. G. Hill, may have others later, if so, will name them in this advertisement. COLEUS, have an abundance now ready of all excepting Golden Bedder, at 90c. per 100; \$7.00 per 1000. G. B. after April 1st. FUCHSIA, Hill, Phenomenal and Storm King, at \$2.00 per 100, in mixture with others at \$1.50 per 100. SMILAX AND PANSIES, plants once reset, at \$5.00 per 1000; 75c. per 100. These are sure to please. Send trial order. CANNA EHEMANII at \$1.50 per dozen; \$10.00 per 100. Samples for 10 cents.

ALBERT M. HERR, Lock Box 338, Lancaster, Pa.

CARNATION BLOOMS.

A full line of fancy colored, long and short stems. I make a specialty of shipping long cuttings. No more ROOTED CUTTINGS of standard varieties to offer this season, except the following:
NEW PINK CARNATION "CHRISTMAS."
The compoe of Grace Wilder. I will now sell Rooted Cuttings of it at \$5 per 100; sent safely by mail. Sample blooms mailed on receipt of 15 cents.

CHAS. T. STARR, AVONDALE, Chester Co., PA.

HEADQUARTERS FOR STOCK OF
NEW CARNATIONS

WM. SWAYNE, L. L. LAMBORN, Pure White;
PRIDE OF KENNETT, Dark Crimson.

Send for price list of Rooted Cuttings of these and other leading market sorts.

My Specialty is Carnation Growing.

Stock is true to name and free from disease.

WM. SWAYNE,

P. O. Box 226. KENNETT SQUARE, PA.

CARNATIONS.

Rooted Cuttings NOW READY, or pips if desired.

LARGE STOCK OF—

WM. SWAYNE AND L. L. LAMBORN.

Also Runners or Rooted Cuttings of

VIOLETS,

Marie Louise, Neapolitan, Swanley White,

W. R. SHELWIRE, Avondale, Pa.

CARNATIONS AND VIOLETS.

Rooted Cuttings of Carnations and well Rooted Runners of Violets in any quantity, ready now. Prices on application.

JOS. RENARD,

UNIONVILLE, Chester Co., PA.

Telephone No. 3 Unionville. All telegrams should be sent to WEST CHESTER, PA.

Strong Rooted Carnation Cuttings,

Taken from healthy, blooming plants.

Orders will NOW be taken. 20 of

the leading varieties.

SEND FOR PRICE LIST.

TUNIS DePEW, Nyack, N. Y.

STOCK FOR FLORISTS.

Per 100
Abutilons, best market sorts.....\$4.00
Coleus, best new and old, 2½-inch.....3.00
" 2-inch.....2.00
Canna, Discolor and Gigantea.....3.00
" Brilliantissima, Papillon, Norma, Allegre, etc., etc.....4.00
Dahlias, good kinds, dry roots.....8.00
Fuchsias, standard sorts.....4.00
Geraniums, double and single.....per 1000, \$25.00, 4.00
Hibiscus, best double.....3.00
Pennis, Adiantum, Cap. Venus, 2½-inch.....3.00
Verbenas, fine stock from pots.....3.00
Roses, standard sorts, from rose pots.....4.00
" Sismet and The Bride, 2½-inch.....per 1000, \$13.00

HANS NIELSON, St. Joseph, Mo.

PRIMULA OBCONICA.

Surplus stock, in first-class condition.

From 2 in. pots, strong.....per 100 \$1.00; per 1000 \$35.00
From 3 in. pots, strong....." 6.00 " 55.00
Seeds, per pkt. (about 1000 seeds) from best strain \$1.
GEO. W. PARK, Parkton, Metal P. O., Pa.
P. S. Fine stock Halliana Honey-suckle at same price.

GRACE WILDER.

Healthy, Well Rooted, January struck plants from the sand bed.

— ALSO —

May Queen, Portia, Florence,

Anna Webb, Silver Spray,

Hinze's White, Etc., Etc.

For prices, address

H. E. CHITTY,

PATERSON, NEW JERSEY.

ROOTED CUTTINGS OF CARNATIONS,
GROWN BY THE QUANTITY.

My new seedling, Lady Rachel, deep maroon with variegated shadings; has no competition among existing carnations; very fragrant, of good habit, early bloomer, nearly all on long stems, \$1 per doz., \$25 per 100. Morning Ray, seedling, very fine, of good merit and early, \$3 per doz., \$20 per 100. Mrs. B. Harrison and Amy, seedlings, \$2.75 per doz., \$18 per 100. Wm. Swayne, \$2.50 per 100. L. L. Lamborn, \$3 per 100. Petunia, White Lapurite, Edwards, \$1.25 per 100. Hinze's White, Snowdon, Peter Henderson, Oneaker City, Miss Joffie, Duke of Orange, Lady Emma, Philadelphia Red, Scarlet King, Portia, Seawan, Chester Pride, Hinsdale, \$2.50 per 100. Silver Sprig, Grace Wilder, \$2.50 per 100. Grace Fardon, Springfield, Sunrise, \$2 per 100. Buttercup, \$3 per 100. Florets of the above varieties \$1.50 per 100. Cash must accompany all orders. Remittances may be made by Money Orders on Kennett Square, or Registered Letter on Toughkenamon or Philadelphia. Also can furnish the second edition on Carnation Culture, by L. L. Lamborn, on receipt of \$1.50, on application.

ISAAC LARKIN,

Toughkenamon P. O., Chester Co., Pa.

CARNATIONS.

ROOTED CUTTINGS.

Schiller & Mailander again offer an unlimited quantity of rooted cuttings of HINZE'S WHITE, at \$10.00 per 1000. Cash with order.

SCHILLER & MAILANDER,

NILES CENTER, ILL.

CARNATIONS.

YOUNG PLANTS AND ROOTED CUTTINGS.

Send for descriptive price list of sixty varieties, including new varieties of this year.

Geo. Hancock,
GRAND HAVEN, MICH.

NEW CARNATION

THE "BERTHA SOPER."

A beautiful salmon pink, long stem, early and late, ever bloomer, extra prolific, vigorous grower; fills a long felt want. Plants ready for delivery April 1st. Price \$3.00 per dozen, \$18.00 per 100. Sample plant 50c. postpaid.

J. J. SOPER,

ROCKFORD, ILL.

R. S. BROWN & SON,

Orchids, Palms, Ferns.

Achyranthus, 2 varieties.	Per 100	\$3 00
Abutilons	\$4, \$6 and	8 00
Ageratum, 2 best varieties.	\$3 and	4 00
Alternanthera aurea nana	2 00	
" Tricolor	2 00	
" Versicolor	2 50	
" Paronychioides	3 00	
" Spectabilis Variegata		
foliage pink	3 00	
Amaryllis Johnsoni, large flowering, bulbs 50 cts. each.		
Begonias, 40 flowering var.	\$4, \$6, \$8	25 00
Begonia Rex, assorted	8 00	
Crotons, assorted	8 00	
Calla, spotted leaf Richardai Alba		
" Muculata	\$5, \$6	8 00
Cactus, Lobster	8 00	
Carnations, assorted	4 00	
Cannas, assorted	5 00	
" New French	16 00	
" " seedlings	10 00	
Cuphea (Fire Cracker plant)	3 00	
Colons, 20 best varieties	\$2, 3	00
Chrysanthemums, of sorts	3 00	
Dusty Miller	4 00	
Dracena Indivisa	8 00	
Dahlias, of sorts	8 00	
Echeveria Glaucia	\$3, \$5, 6	00
" Rosa	\$6, 8	00
" Extensia Globosa	\$12, 25	00
Eulalia Gracillima	12 00	
" Japonica Zebrina	16 00	
Forget-me-nots, of sorts	4 00	
Euphorbia Spicidens	\$4, \$6, 8	00
Feverfew Little Gem	4 00	
Fuchsia, double and single	\$3, \$4, 6	00
" Storm King	6 00	
" Phenomenal	8 00	
" Mrs E G Hill	8 00	
Glechoma Hederacea, var. ground ivy	8 00	
Gladiolus, of sorts, Red	1 50	
" " Light	\$3, 4	00
" " Named	6 00	
Geraniums, assorted	\$3, \$4, 6	00
" Scented, of sorts	\$4, 6	00
" Lady Washington, sorts, \$6, 8	00	
Moon Flowers	4 00	
Hibiscus, assorted	\$4, \$6, 8	00
Hydrangea, assorted	\$5, 16	00
Impatiens Sultana	6 00	
Lemon Verbenas	4 00	
Lantanas, of sorts	\$4, \$6, 8	00
Montbretia Crocosmaeflora	5 00	
Oxalis, assorted	\$4, 6	00
Perennial Phlox, of sorts	\$6, 8	00
Nasturtium, Darkness, double red	8 00	
Salvias, assorted	4 00	
Roses, of sorts, Teas	\$4 to 15	00
" " H. P.	\$6 to 15	00
Pilea Arborea	\$3, 4	00
Vincas, trailing sorts	\$4, 6	00
Verbenas, of sorts	3 00	
Wax Plants	8 00	
Ferns, named kinds, 4-in pots	25 00	
" " 2½ & 3-in pots, 8 00		
Hardy Plants, of sorts	\$8 to 16	00
Orchids, of sorts, \$1 00 to \$3 00 each.		

We have many varieties not mentioned here. Also Bedding Plants in great variety. Not less than three plants of a kind sent. No order filled from this list for less than \$3.00.

TRADE LIST AND CATALOGUE FREE.

Robt. S. Brown & Son
BOX 99.
KANSAS CITY, MO.

CHRYSANTHEMUMS.

I have the pleasure to offer a few bread winning varieties, that is, varieties which do pay to grow in quantities.

OF WHITES.	Per 100	OF PINKS.	Per 100
MRS. ALPHEUS HARDY	\$10 00	ELEANOR BARES, very early	4 00
L. CANNING, superb	4 00	M. E. NICHOLS, very early	4 00
PURDIE'S	4 00	LORD MAYOR	4 00
DOMINATION	4 00	TRIUMPHANTE	4 00
DIANA	4 00	M. BOYER	4 00
M. A. DE LAUR	4 00		
OF YELLOWS.			
GLORIOSUM	4 00		
GRAND FLOURE	4 00		
GOLD	4 00		
H. CANNELL	6 00		
GOLDEN DR. BROCK	4 00		

25 of the best new kinds of last year—for exhibition cut flowers, \$2 50.
25 best varieties for pot culture, \$2.00. 100 vars. of the best, 1 plant of each, \$6.00.
100 varieties, 2 plants of each, \$10 00.
Coronet, rich gold, magnificent, each 50c. Lilian B. Bird, shrimp pink, each, 25c.
Alavanche (True), superb white, " 75c. Carew Underwood, lovely bronze, " 25c.
Sunflower, glorious yellow, " 50c. The set for \$2 00.

PYRETHRUM ULIGINOSUM, this is a remarkably fine species and must become a general favorite. It flowers naturally, at the end of September. It can be forced so as to be in flower at Easter. The flowers resemble and are much larger than the Paris Daisy. Price, 6 plants for \$1 00.

My select list of Chrysanthemums will be mailed on application.

TERMS: CASH WITH ORDERS.

JOHN THORPE,
Pearl River, New York.

CHRYSANTHEMUMS.

Waterer's Novelties for 1890.

President Harrison. Mrs. Charles Dissel, Edwin Lonsdale, Twilight, Mrs. Frank Clinton, Reward, Model, White Cap, Gipsy, Miss Minnie Wannamaker. Also

Waterer's Last Year's Set.

Excellent, Mrs. W. K. Harris, T. C. Price, Violet Rose, Miss Anna Hartshorne, Wm. Dewar, Ivory, etc., and all other good kinds.

SEND FOR LIST TO

H. WATERER,

56 North 38th Street,
PHILADELPHIA, PA

NOW IS THE TIME TO ORDER

Begonia Crassifolia Erecta Grandiflora

(TUBEROUS BEGONIA),

IN MANY SEPARATE COLORS.

Per 1,000 \$60 00

Per 2,000 110 00

Per 5,000 250 00

Per 10,000 450 00

Mixed colors, \$50 00 per 1000.

The quality of the sorts and bulbs guaranteed.

DELIVERED FREE.

Orders for less than 1000, cash with order

H. W. OTTO, Florist,

GOUDA, HOLLAND.

ORDERS TAKEN NOW for Rooted Cuttings or Plants by the 1000, of all Roses. Extra healthy stock of Carnations, Violets, Bouvardias, Calas, Geraniums, Fuchsias, Heliotropes, Ivies, Ivy Geraniums, Vincas variegata, Fropoulain Tom Thumb, Nierenbergins, Trelozes, Coleus, Alternantheras, best Chrysanthemums including Mrs. Alpheus Hardy, etc. Gladiolus, Rex and blooming Begonias, Aralias, Cyperus, Aspidistras, young Palms, Dracenas, Pereskias, Epiphyllus, Liliom flavescens, \$10 per 100, imported plants Box, Frunus, Laurus cerasus, Aucubas, etc. 1 cifer 500 6-inch winter Stocks ready to bloom, also Wall flowers and fine 4 to 6-inch Cinerarias of finest colors. Ask prices. Contracts made for cut flowers now. Wanted Ficus cuttings. ALBERT FUCHS, OFFICE, Division St. near Clark. GREENHOUSES, Evanston Ave., Halsted St. and Sheridan Drive, CHICAGO.

Unleached Oak Wood Ashes,

at \$25 00 per Car Load, near St. Louis, f. o b

JORDAN FLORAL CO., St. Louis, Mo.

NEW CHRYSANTHEMUMS.

Choice Seedlings raised by the introducer.

Mrs. Benjamin Harrison, pearl white First-class
Mauds, rose white—Chinese. Certificate
Peerless, lemon yellow. at Boston,
Nov. 1888.

AURIOLE. Silvery s'traw color.
Special Prize at Boston, Nov. 1889.

MRS. JOHN S. FOGG, bright yellow.

Full Descriptive List free on application.
Price, \$1 00 each; set of five, \$4 00. Orders filled in rotation. Plants ready March 1st, 1890

George Hollis,
SOUTH WEYMOUTH, MASS.

NEW SWEET SCENTED CHRYSANTHEMUM

"Nymphæa." A decided novelty. Form and fragrance of Pond Lily. Fine for florists use. As the cream of the cream of older varieties. Send stamp for plate of "Nymphæa" and Catalogue.

H. W. HALES, Ridgewood, N. J.

NEW ADA SPAULDING CHRYSANTHEMUM

Choicest Foreign and American Novelties warranted true to name; Selected Hybridized Seed, 25c per packet. Tuberos Begonias of finest varieties. Catalogue on application.

T. H. SPAULDING, Orange, N. J.

CHOICEST FOREIGN AND AMERICAN NOVELTIES WARRANTED TRUE TO NAME. (1) A decided novelty. Form and fragrance of Pond Lily. Fine for florists use. As the cream of the cream of older varieties. Send stamp for plate of "Nymphæa" and Catalogue.

ROSES.

Marchal Niel, La Marque, Mme. Planter, Mme. Camille, Rubus Grandiflorus. Fine plants, in 3-inch pots, per 100, \$4.00.

CHRYSANTEMUMS.

Mme. Des Granges, Princess Melitia, Robt. Bottemly, Tumbal d'Or, Belle Paule, Mrs. Cleveland, Gloriosum, Tubiflorum.
Per 100, \$3.00.

WILL EXCHANGE FOR OTHER STOCK.

W. W. HENDRIX, Bowling Green, Ky.

THE WM. H. MOON CO.

MORRISVILLE, BUCKS CO., PA.
Nurserymen and Landscape Architects,
offer an immense stock of all kinds of
FRUIT and ORNAMENTAL TREES, SHRUBS and VINES.
A 48-page descriptive illustrated catalogue free.

The Mild Season.

Messrs. Taggart & Wilbur, Norfolk, Va., send us a box of flowers cut from plants in the open ground, including roses, hyacinths and hardy shrub bloom. In a letter under date of Feb. 6 they say: "Fuchsias were in bloom till after Jan. 1. Last night at six o'clock it was 70° outside, and this morning at 8 it was 40°. In fact 28° is as low as we have had, and it has not been below 32° more than four or five times. Vegetation has had very little check, and roses have been making new growth all the winter. Last month we had an almond tree in full bloom, but with this cold snap I guess the almonds will disappear."

CYCAS REVOLUTA,

In all sizes from 8 inches to 3 ft. high, laid down in San Francisco, freight and all other charges paid.

Pot-grown, well established plants, with root balls (root balls excluded), per 100 lbs. U. S. currency, \$18.00.

Open ground, well rooted, out of my Yokohama nurseries, per 100 lbs., U. S. currency, \$15.00.

Freshly collected, prime quality, per 100 lbs., U. S. currency, \$12.00.

[Orders for less than 500 pounds cannot be executed, as orders for a few hundred pounds would cost too much freight in proportion.]

RHAPIS FLABELLIFORMIS.

Also laid down in San Francisco.

Fine cultivated pot plants, from 18 inches to 2½ feet high, per 100 shoots, U. S. currency, \$30.00.

The same, freshly collected, per 100 shoots, U. S. currency, \$10.00.

TERMS. Cash with order or letter of credit to draw against.

LOUIS BOEHMER,

Nurseryman, Florist and Exporter of Japanese Plants, Bulbs, Etc.,

28 Bluff, YOKOHAMA, JAPAN.

Reference, U. S. Legation, Tokio, Japan.

Choice Stock Cheap.

	Per 100
1000 Geranium White Swan, 2½-in.	\$5.00
2000 Geranium White Swan, 2-in.	4.00
8000 Geranium, in 20 choice varieties, 2½-in.	2.50
3000 Geraniums, a mixture of 30 good varieties, 1½-in.	3.00
10 2½-in. pots, very cheap in order to make room	3.00
3000 Rose Geraniums, 2-in.	3.00
1000 Single Primroses, fine strain 2½-in.	4.00
500 Primula Obconica, 3-in.	5.00
2000 Saxifrag, 2 and 2½-in. pots.	1.50
1000 Moon Vines, true large flower, 2½-in.	4.00
2000 Lantanas, 4 best varieties, 2-in.	4.00
2500 Abutilons, 8 best varieties, 2-in.	3.00
500 Double Alysiums, 2-in.	2.50
1000 Hibiscus, nice plants, 2½-in.	3.00
1000 Deutzia Coronata, 2-inch, dormant	3.00
per 25 or 50 of any of the above at the 100 rate.	

Address N. S. GRIFFITH,

JACKSON CO. INDEPENDENCE, MO.
(Independence is well located for shipping, being 5 miles east of Kansas City.)

A Yellow Ageratum.

A seedling of last year, of strong growth and bright canary yellow color.

POT PLANTS, \$1.00 EACH.

Emil Glauber,
MONTCLAIR, COLORADO.

IMMENSE STOCK OF

PALMS, ORCHIDS & DECORATIVE PLANTS

WHICH EVERY FLORIST SHOULD CARRY.

Wholesale Catalogue sent free. New Illustrated and Descriptive Catalogue (208 pages) 25c., which amount will be allowed on first order.

SIEBRECHT & WADLEY,

ROSE HILL NURSERIES, New Rochelle, N. Y.

409 FIFTH AVENUE, NEW YORK.

N. STUDER, WHOLESALE FLORIST.

I have a Large Stock of DECORATIVE PLANTS, as

PALMS, DRACÆNAS, FERNS, PANDANUS, ETC.,

for immediate use, and a still larger stock growing on for Spring sales, as well as of all the choicest BEDDING and CUT FLOWER PLANTS, especially ROSES. Everything in excellent condition.

Inspection of my stock at the Nation's beautiful Capital cordially invited.

WRITE FOR PRICE LIST.

ANACOSTIA P. O., WASHINGTON, D. C.

SEND IN ORDERS NOW FOR SPRING DELIVERY OF



JAPANESE MAPLES,

of which we import 20 choice varieties.

Maple Seedlings for Grafting.

HARDY MAGNOLIAS and other Flowering Shrubs.
AUSTRALIAN TREE FERNS, Araucarias, Cycas revoluta, Rhapis, Kentias, and California Palms.

BULBS.

Thirty choicest varieties from Japan.
Sacred Lily from China

SEEDS.

Fresh from Japan and Australia.

PAMPAS PLUMES.

A very Choice lot on hand.

Send for Estimates and Price Lists.

H. H. BERGER & CO.,
P. O. Box 1501, SAN FRANCISCO, CAL.

Established 1878.

500,000

CHOICE FERNS.

We offer the following varieties in splendid condition

from 2½-in. pots, \$8 per 100; 3-in. pots, \$8 per 100.

Adiantum Cuneatum, Nephrolepis Exaltata,
Alsophila Australis, " Duffii,
Davallia Stricta, Onychium Japonicum,
Dicksonia Antarctica, Pteris Leptophylla,
Lastrea Aristata var., " Serrulata Cristata,
" Opaca, Stalioalium Circutarium,
Lomaria Ciliata.

The sorts noted below from 2½-inch pots, \$5.00

per 100; 3-inch pots, \$6.00 per 100.
Adiantum Pubescens, Pteris Argurea,
Anemidictyon Filicoides, " Serrulata,
Blechnum Brasiliensis, " Sieboldii,
Lygodium Scandens, " Semoralis,
Polypodium Aureum, " Tremula,
Pteris Hastata.

Drer's Wholesale Quarterly list for the trade only, mailed on application, which offers a complete stock of decorative and Ornamental plants, now ready for Spring 1893.

HENRY A. DREER,
714 Chestnut St., PHILADELPHIA.

SEVEN OAKS NURSERIES.

BAY VIEW, FLORIDA,

Growers and Importers of

RARE TROPICAL FRUIT PLANTS,

ORCHIDS, PALMS, CACTI, ETC.

We have an extensive stock of choice exotie plants, clean and well grown.

Special attention paid to packing which insures safe carriage to any distance. Full descriptive catalogue sent on receipt of 10c. in stamps—post free to customers.

R. D. MOYTT, Manager,

ORCHIDS! ORCHIDS!

Many additions of Choice New varieties this season.

Send for New Catalogue.

WM. MATHEWS,

UTICA, N. Y.

CUT BLOSSOMS AT ALL SEASONS.

ORCHIDS

Cheap as Good Roses.

Send 8 two cent stamps for Catalogue and Plate.

BRACKENRIDGE & CO., GOWANSTOWN, Md.

JOHN SAUL'S

Washington Nurseries.

Our catalogue of new, rare and beautiful plants for 1890 will be ready in February. It contains a list of all the most beautiful and rare Greenhouse and Hothouse Plants in cultivation, as well as all novelties of merit, well grown and at very low prices. Every plant-lover should have a copy.

ORCHIDS.

A very large stock of choice East Indian, American, etc. Also catalogue of Roses, Orchids, Seeds, Trees, etc.

JOHN SAUL, Washington, D. C.

Mention American Florist.

PALMS.

	Per 100
Brahea Filamentosa, 2-inch pots.	\$ 5.00
" " 3-inch pots.	10.00
" " 4-inch pots.	25.00
Chamærops elegans, 4-inch pots.	50.00
" " 5-inch pots.	75.00
" " 6-inch pots.	100.00
" " 7-inch pots.	150.00
" " 8-inch pots.	200.00
" " 9-inch pots.	250.00
" " 10-inch pots.	300.00
" " 11-inch pots.	350.00
" " 12-inch pots.	400.00
" " 13-inch pots.	450.00
" " 14-inch pots.	500.00
" " 15-inch pots.	550.00
" " 16-inch pots.	600.00
" " 17-inch pots.	650.00
" " 18-inch pots.	700.00
" " 19-inch pots.	750.00
" " 20-inch pots.	800.00
" " 21-inch pots.	850.00
" " 22-inch pots.	900.00
" " 23-inch pots.	950.00
" " 24-inch pots.	1000.00
" " 25-inch pots.	1050.00
" " 26-inch pots.	1100.00
" " 27-inch pots.	1150.00
" " 28-inch pots.	1200.00
" " 29-inch pots.	1250.00
" " 30-inch pots.	1300.00
" " 31-inch pots.	1350.00
" " 32-inch pots.	1400.00
" " 33-inch pots.	1450.00
" " 34-inch pots.	1500.00
" " 35-inch pots.	1550.00
" " 36-inch pots.	1600.00
" " 37-inch pots.	1650.00
" " 38-inch pots.	1700.00
" " 39-inch pots.	1750.00
" " 40-inch pots.	1800.00
" " 41-inch pots.	1850.00
" " 42-inch pots.	1900.00
" " 43-inch pots.	1950.00
" " 44-inch pots.	2000.00
" " 45-inch pots.	2050.00
" " 46-inch pots.	2100.00
" " 47-inch pots.	2150.00
" " 48-inch pots.	2200.00
" " 49-inch pots.	2250.00
" " 50-inch pots.	2300.00
" " 51-inch pots.	2350.00
" " 52-inch pots.	2400.00
" " 53-inch pots.	2450.00
" " 54-inch pots.	2500.00
" " 55-inch pots.	2550.00
" " 56-inch pots.	2600.00
" " 57-inch pots.	2650.00
" " 58-inch pots.	2700.00
" " 59-inch pots.	2750.00
" " 60-inch pots.	2800.00
" " 61-inch pots.	2850.00
" " 62-inch pots.	2900.00
" " 63-inch pots.	2950.00
" " 64-inch pots.	3000.00
" " 65-inch pots.	3050.00
" " 66-inch pots.	3100.00
" " 67-inch pots.	3150.00
" " 68-inch pots.	3200.00
" " 69-inch pots.	3250.00
" " 70-inch pots.	3300.00
" " 71-inch pots.	3350.00
" " 72-inch pots.	3400.00
" " 73-inch pots.	3450.00
" " 74-inch pots.	3500.00
" " 75-inch pots.	3550.00
" " 76-inch pots.	3600.00
" " 77-inch pots.	3650.00
" " 78-inch pots.	3700.00
" " 79-inch pots.	3750.00
" " 80-inch pots.	3800.00
" " 81-inch pots.	3850.00
" " 82-inch pots.	3900.00
" " 83-inch pots.	3950.00
" " 84-inch pots.	4000.00
" " 85-inch pots.	4050.00
" " 86-inch pots.	4100.00
" " 87-inch pots.	4150.00
" " 88-inch pots.	4200.00
" " 89-inch pots.	4250.00
" " 90-inch pots.	4300.00
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	Per 100
Grape Vines, E. & W. State, 2 year.	\$10.00
" " 1 year, strong.	7.00
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Daisies, English double white, and Longfellow	2.00
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Asters Victoria, transplanted, bloom next June	1.00
This is a cash list, good till April 1st.	

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It is a vigorous grower, bearing a profu-
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I carry a class of stock that but few
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and will guarantee to furnish a 3 inch
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that may be wanted. We do not send out
a 2 inch plant in a 3-inch pot.

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The cream of the best French, Belgian and English collections. See AMERICAN
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I read article in the FLORIST of February 1 about cut worms and think I can give a remedy. We have the simon pure article that cuts the plants off near the ground out of pure cussedness, as it seldom touches the top, and another rather lighter colored variety which I think is the one that is troubling Mr. H. Tong, as it seldom or never cuts the plant near the ground, but climbs up and eats the leaves. They did considerable damage for us in our smilax house before I knew what the trouble was, but finding a few one day when raking the bed concluded they were the cause, and that evening I took a lump and went into the house and found them very busy. I gathered 300 to 400, next evening got 30 or 40, and the third night only 4 or 5, and have not been troubled with them since. They can be seen very readily by lamp light; it is quite necessary to be careful as a slight jar will dislodge them when it would be very difficult to find them.

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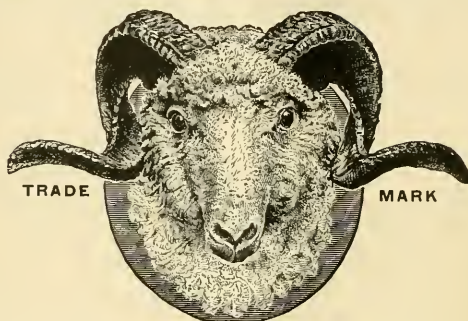
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25 or 50 of any of the above at the 100 rate.

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The Indestructible Metal Label of the
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WITHOUT A RIVAL, EITHER IN
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- 1st. Give the number of sashes to be lifted.
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Mr. W. R. Davison will build two violet houses this spring 150x12 feet each.

Mr. H. G. Newton will remove his greenhouses from their present place to his farm in South Nyack.

Mr. P. Johnson, formerly with A. C. Tucker, is now foreman for H. E. Blauvelt. Mr. Blauvelt will build three rose houses 150x23 each this spring.

Mr. A. C. Tucker has had this season the finest Brides and C. Mermets ever seen; the plants were seven to eight feet in height, with abundance of foliage and loaded with buds.

Mr. M. Hogan, foreman for A. C. Tucker, was married on the 4th inst. We congratulate him. B.

"A Kicker."

"SIR!!"—I, just received 3 shriveld up cuttings of Girenumms aldo i had ordered Fejnchias. How any respectable house can descend so low; advertise what they do not got unsend some oder trash in place off it is more as what i can understand. i intentet to import a dollar wort of some new plants from you an yust sent you a schmall trial job which i did to find out how a hous does their business—I here with return your shriveld up cuttings and most earnestly comend you to return my quater dollar as i dont want them or any trash you would like to throw of your hands—if you should facd to return the money by return of the made i shal take the liberty to publish your transaction in our 3 local pabers and in the pacific rural press, hoping for the return of my money i am resp.

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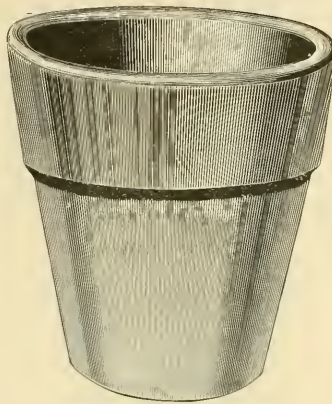
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We are manufacturing Standard Pots, and are now ready to fill orders for same, at popular prices. Shall make but 2, 2½, 3, 4 and 5-inch at present, and will continue to carry the Machine Turned Pot, the same as heretofore. Also have every size of Hand Made Pots, from 2-inch to 12 inch inclusive, and a full line of Hanging Baskets.

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All goods are well packed, delivered free at any freight depot in the city of Chicago, and are then at purchaser's risk.

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2 inch	\$.45 per 100.	\$3.85 per 1000
2½-inch55 "	5 50 "
3-inch70 "	6 60 "
4-inch	1 12 "	9 90 "
5-inch	1 80 "	17 60 "

TEN PER CENT. DISCOUNT FOR CASH WITH ORDER.

SEND FOR TRADE LIST.

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STANDARD POTS

made by the latest improved machinery, are better and cheaper than those made by the old way. Price, P. O. B cars here, free of charge:

2-inch	\$3.25	per 100, \$3.50
2½ " " " " " "	3.50	" " 5.00
2½ " " " " " "	4.00	" " 7.00
3 " " " " " "	5.00	" " 10 "
3½ " " " " " "	7.25	" " 12 "
4 " " " " " "	9.00	" " 20.00
5 " " " " " "	per 100, 1.38	" " 50 (10)
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All pots shipped at fifth-class frt. rates. Terms cash.

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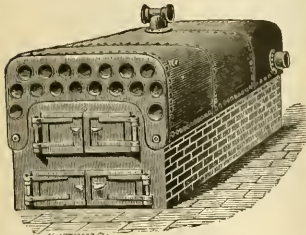
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WRITE FOR PRICES.

SASH
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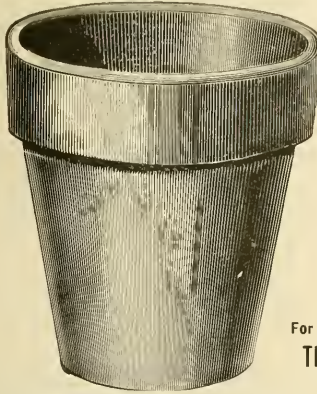
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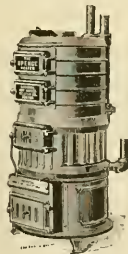
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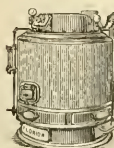
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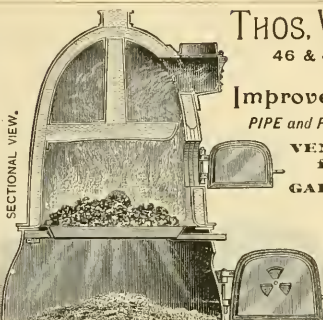
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Index to Advertisers.

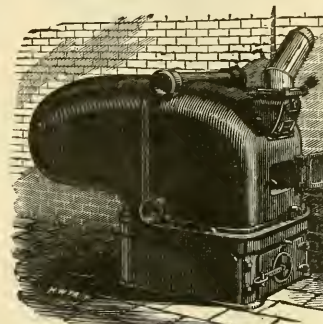
Advertising Rates, etc.	310
Aldine Printing Works	310
Allen S. L. & Co.	313
Allen, W. S.	313
Association Flora	313
Bailer F. A.	315
Bayersdorfer H. & Co.	321
Berger, H. H. & Co.	318
Blanc A.	321
Boek Wm A.	312
Boelmer Louis	318
Brackenridge & Co.	318
Brown L. B.	318
Brown R. S. & Son.	317
Burrow J. C.	314
Butz Paul & Son.	313
Callwell Geo W.	313
Carmody J. D.	324
Casper L. A.	319
Cause Andre L.	320
Chaapel Harry	314
Chandler Alfred	321
Chipman Bros.	319
Chitty H. E.	318
Connelly John J.	313
DePew Tunis	316
DeVeer J. A.	316
Devine, Peter	322
Diez, John L. & Co.	323
Dillon, J. L.	321
Dingee & Conrad Co.	308
Greer, H. A.	308
Elliott Wm & Sons	320
Faber Bros	319
Ferguson John B.	311
Ferry D. M. & Co.	313
Fisher Bros & Co.	312
Fisk Chas H.	311
Frese O. W.	311
Fryer E.	318
Fuchs Albert	318
Fulweiler P. C.	323
Gardiner Jno & Co.	320
Garfield Park Rose Co.	311
Gibson J. C.	316
Glauber Emil	316
Greene W. W. Son & Sayles	308
Gregory James H. & Co.	314
Griffith Jas	321
Griffith, N. S.	318
Hales, H. W.	317
Hallack V. H. & Son.	313
Hammond, Benj.	319
Hammond & Hunter	311
Hancock George	316
Henderson John Co.	309
Henderson Peter & Co.	311
Hendrix W. W.	317
Herendeen Mfg. Co.	324
Herr, Albert M.	316
Hewes A. H. & Co.	322
Hillinger Bros.	322
Hippard E.	309
Hitchings & Co.	324
Hollis George	317
Hooker, H. M. & Co.	318
Horan, Edw C.	311
Hoyt R. D.	318
Hudson John M.	311
Hunt & Markuth	311
Hughes E. G.	312
Ives, J. H.	322
Jackman Geo. & Co.	319
Jewett Z. K.	317
Jordan Floral Co.	317
Kelsey F. W.	314
Kennout Bros	311
Kent Place Nurseries	319
King Jas	314
Koffman E.	312
Kramer L. & Son	313
Krick, W. C.	322

Krombach Charles	313
Lane with J. C.	313
Larkin Isaac	316
La Roche & Stahl	311
Lauer A.	309
Lenton S.	313
Lockland Lumber Co.	322
Lovett J. T. Co.	321
McCarthy N. F. & Co.	311
McFarland J. H.	313
McMahon Frank	318
Marc Gabriel & Co.	317
Mathews, Wm.	318
May L. J. & Co.	319
Meech J. J. & Son.	319
Merrick, A. T.	321
Mette Henry	315
Michael Plant Seed Co.	320
Miller, Geo. W.	313
Miller John	318
Moon Wm H. Co.	317
Mullen Geo.	311
Nanz & Neuber	309
National Hot Water Heater Co.	323
Nelson Hans	316
Otto H. W.	317
Palmer John & Son	313
Park & Co.	313
Pennock Chas B.	311
Phillip M.	314
Pike Co Nurseries	315
Plenty, Josephus	315
Porter, John W.	313
Quaker City Mch. Wks	321
Reed & Keller	321
Renard J. C.	316
Riechers F. A. & Sohn	314
Roller, A. & Sons	314
Ross & Milling	318
Salter Bros.	318
Salzer John A Seed Co.	320
Saul John	318
Schiller & Mailander	314
Schulz Jacob	316
Scollay John A.	324
Segers Bros	315
Shelmer W. H.	316
Sheridan W. J.	311
Siebrecht & Wadley	315
Snyder Joseph & Co.	322
Situations, Wants	308
Smith David	324
Smith Powell & Lamb	313
Smith & Smith	322
Soper J. J.	316
Souper & Notting	318
Spaulding T. H.	317
Spooner, Wm. H.	320
Starr Chas T.	316
Steffens N.	322
Stewart, W. J.	311
Storrs & Harrison Co.	316
Strauss G. & Co.	310
Studer N.	318
Swayne Wm.	315
Syndicate of Growers	315
Thompson Mrs J. S. K.	313
Thorne John	317
Trischler M. & Son	311
Uhlert F. J.	311
Van der Schoot & Son	315
Vaughan, J. C.	314
Walter I.	317
Weathered, Thos. W.	324
Welch Bros.	311
Whitlin Pottery Co.	323
Wilks Mfg Co.	323
Williams H. W. & Son	318
Wisconsin Flower Ex.	311
Young, Thos. Jr.	311
Zirngiebel D.	313



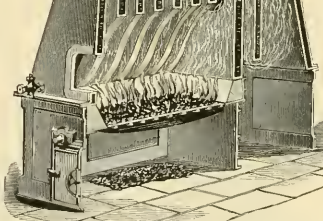
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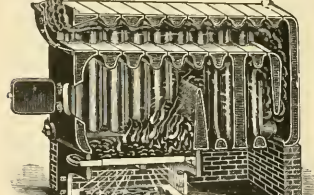
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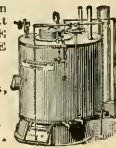
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Vol. V. CHICAGO AND NEW YORK, MARCH 1, 1890. No. 110.

THE AMERICAN FLORIST

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CONTENTS.

Are chrysanthemums an injury	328
Boston notes	328
A tribute to the memory of John Henderson	326
Detroit notes	326
A wedding decoration	326
A beautiful plant	327
<i>Epiphyllum truncatum</i> (illustration)	327
Some English notes	327
Hardy herbaceous plants	328
<i>Dictamnus fraxinella</i> (illustration)	328
<i>Gaillardia maxima</i> (illustration)	329
<i>Chrysanthemum maximum</i> (illustration)	329
Carnations—cost of production	330
The carnation belt	330
Propagating from forced plants	330
The increase of bulbs	330
<i>Lilium Harrisii</i> at the holidays	331
<i>Salvia splendens</i> var. <i>Brunanti</i> (with illness)	331
Freemias	331
Orchids—hints for beginners	332
Cypripediums at Mr DeWitt S Smith's	332
<i>Odontoglossum Pescatorei</i> var. (with illness)	332
Steam heat for orchid houses	332
Tuberous begonias	332
The night man	333
Cut flower quotations	334
Nomenclature	334
The committee on nomenclature	334
Pitch of roof for rose houses	334
The Wootton	334
Leaves of advice from a limb of the law XII	335
Myron A. Hinn (with portrait)	335
Leaky joints	335
Catalogues received	335
News notes	336
Killing greenfly (with illustration)	337
Obituary—Dr Charles C. Perry	339
The Henry Shaw school	340
Cost of production	340
The Wootton	340
Catalogue illustrations	341
Order of roses	341
The spider lily	346
<i>Musa ensata</i>	346
Jersey to the front	346
Hints to shippers	350
A florist's "want"	350
Killing greenfly	352
Stopping leaky joints	354
Correction	354

THIRTY-TWO PAGES THIS ISSUE.

CHICAGO renews her invitation, made at Buffalo last August, to the World's Fair of 1892.

OUR NEW TRADE DIRECTORY is now ready. It gives a complete and accurate list of the florists, nurserymen and seedsmen of the U. S. and Canada. Price \$2.

Are Chrysanthemums an Injury.

BY THOMAS CARTLEDGE.

[Read before the Florists' Club of Philadelph'ia January.]

Are chrysanthemums an injury to the florists' business? I say most decidedly not, but a positive benefit. Either they or any other flower that a florist grows and can sell and make money on is certainly not an injury to us. Let me ask the question, What is a florists' business? Why to grow both plants and flowers and sell them either at wholesale or retail at a price that will pay him a good profit for his expenses, labor and outlay of cash, and leave a margin to be laid up for the traditional rainy day. That I take to be the florists' business we term a grower. I am sure chrysanthemums well grown will fill the above requirements. The florists who make a specialty of chrysanthemums, tulips, etc., might apply the same question to the rose grower, for certainly if no roses were grown he would likely have a better market for his specialties, but I do not think any one will assert that roses are an injury to our business, although they may be to the chrysanthemum florist or the orchid or bulb grower.

The other branch of the florist business, the retailer, the man who keeps the shop, buys wholesale of the grower both plants and flowers and sells them to his patrons at a small advance if he can not get a large one. I know by many years of experience that he makes as much money proportionately on his chrysanthemum plants and flowers as on anything else he handles. I do not intend to say that quite as many roses, carnations, etc. are sold as there would be if there was no such thing as a chrysanthemum on the market (but the chrysanthemum is here and here to stay, and under these circumstances what are you going to do about it?) but they do not hurt the sale of roses any more than tulips, lily of the valley, daffodils, or other flowers that are grown in quantity do. We must have variety, all our patrons do not love one kind of flower or plant; and again do not the beautiful ferns that we arrange in so many shapes for house decoration interfere greatly with the sale of all kinds of cut flowers and plants? Many of our customers prefer them to flowers; for many an occasion they crowd out cut flowers, not always because they are the prettiest, but because they are cheaper than roses or expensive cut flowers, and perhaps look a little more tony than the very cheap class of flowers.

Some will say chrysanthemums are a cheap flower and cheap flowers are no good, but I don't believe it. Now just let me knock that fallacious idea out of your heads by showing you the price chrysanthemums brought this fall. Ordinary ones with fair stem and foliage sold

at \$1 per hundred wholesale, carnations of good quality brought only as much, and the price this year was higher than usual. W. K. Harris, Mr. Craig and other first class growers of chrysanthemums that grow them so well that they are a credit to any florist or to the customer that gets them, got from \$2 to \$25 per hundred, and all sold readily at as high a price as the best roses on our market were bringing, and they certainly were fine and if they keep on improving they will make our darling roses hustle to keep their place on top.

Are they an injury to our branch of the business? is a question easily answered. What could we get to take their place All Saint's day when so many white flowers and plants are wanted for cemetery, house and especially church decoration? or what so beautiful in their snowy whiteness and quantity of flowers and for festive occasions? all the time they last they supersede everything else, benefitting us and our patrons not only by their beauty and effectiveness, but by their reasonable price, making more people use them, thereby extending our trade and making flowers seem to be a necessity, and the short time they are in their glory is another advantage to both grower and retailer. If they do hurt the roses it is for such a short time that our growers ought not to find fault. We know the rose growers are of the most consequence, but give the other fellow a little chance. In my experience there is always a boom in the flower trade when chrysanthemums come in, and why? may I ask; because they are so pleasing in color, so useful for decoration, whether for house, church or cemetery, wedding feast or funeral; the quantities exposed for sale in the streets and by the florists make people think of flowers, and thinking of them they buy them, and after they are done they buy roses and other flowers, thus positively benefitting the whole trade. I think we place a very low estimate on the intelligence and ability of our florists when we accuse them of growing plants and flowers that are an injury to their business. They certainly have intelligence and ability and are as wide awake as to profits as any other class of business men, and some of them seem to get their share of them and they deserve it too.

This question seems to worry our rose growers more than anybody else. Why don't they find fault with the ferns that come in competition with their roses all the year round? with tulips grown as largely as chrysanthemums, and all other flowers? Do they want the whole earth to grow roses on and crowd every other fellow off?

Lastly I come to the cheap flower. Don't we want a cheap flower? Are flowers to be only for the rich? Why should not our worthy working people have flowers for their jollities the same

as the rich? If they cannot afford to buy the beautiful roses and aristocratic orchids and palm plants, let them have their daisies, chrysanthemums and tulips. They certainly enjoy them as much as the rich; they don't cost as much as beer and tobacco and leave no bad headaches or unpleasantness behind. Let the poor working girl have her chrysanthemum plant or geranium, the sick girl her few cheap flowers by her couch, and the hospital patient also. They may do more good than physic and cheer the house of suffering and pain. Charity may begin at home, but it don't end there. Thank a kind Providence for the poor cheap chrysanthemum that is within the reach of all. I trust our florists will keep them there, growing them in quantity and good quality, even if we do call them cheap florists and cheap chrysanthemums.

Boston Notes.

The incoming of Lent has not made any appreciable impression on the cut flower trade, which still continues remarkably steady. This may be accounted for, in part, by the fact that the coldest weather of the season has prevailed since Lent came in, but it is undeniable that for the past few seasons the flower trade has seemed to feel less and less the effect of the fashionable stagnation which is expected to accompany the Lenten season, and it is to be hoped that this tendency will continue, for at no time of the year is the variety of cut flowers greater or their quality better than at this season. Orchids and ericas are just in their prime; cyclamens, primulas and violets, tulips, daffodils and other bulbous blooms, etc., are at their best, and choice roses of all kinds seem to throw their handsomest flowers just now when they escape both the weakening results caused by early forcing, and the debilitating effects of the warm spring days a few weeks later. In flowering plants the most effective thing at present is the genista. The florists' windows are gorgeous with the beautiful golden masses, and judging from the frequency with which they are seen in parlor windows these deserving plants are getting to be extremely popular. Some good amaryllises in bloom are also shown. A great many tulips and daffodils both double and single are sold for room decoration. They are planted in pans, averaging about a dozen bulbs to the pan.

At the weekly meeting of the Mass. Hort. Society on February 8 a very instructive paper on "Chrysanthemums" written by Mr. W. A. Manda, was read by Secretary Manning. On February 15 the subject was "Cemeteries and Parks," an interesting paper being read by Mr. J. G. Barker, Superintendent of Forest Hills Cemetery. On March 1 Prof. J. T. Rothrock, of West Chester, Pa., will read an essay on "Forestry." The annual spring exhibition will be held at Horticultural Hall on March 26, 27, 28. The schedule enumerates premiums amounting to about \$650, offered for tender azaleas, orchids, roses in variety, spring flowering bulbs and other seasonable things. On Saturday February 15 Jackson Dawson exhibited cut blooms of a pretty little semi-double pink rose, which was of interest from the fact that it was the result of a cross between the Japanese multiflora and the Gen'l. Jacqueminot.

All the stock in the greenhouses of the late F. C. Fisher at South Sudbury was sold at auction on February 12. It consisted principally of carnations, chrysanthemums and hydrangeas, all of which brought fair prices considering the circumstances.

W. J. S.

A TRIBUTE

Offered by the New York Florist Club to the Memory of

JOHN HENDERSON.

Another good man has gone. Another page in history has been filled with the record of a noble life, closing with the tribute we now place upon his tomb.

John Henderson's name is imperishably written in the history of American floriculture, and as indelibly engraved on the hearts of all who truly knew him. Cradled in the lap of wealth; endowed by nature with a love for the beautiful and good; having been educated at the fountain of English learning, visited in manhood's brightest years by the vicissitudes of fortune, he came among us poor but respected, and has departed from us rich and respected, bequeathing to his many friends gifts by example of honor, integrity, manly pride and virtue pure. His peculiarly fine moral qualities, his single-minded, straightforward manner and his genial kindness, together with his confidence in his fellow man, were adorned by rare intelligence and high moral culture.

In his intercourse with his fellow man he was never affectionate, rarely confiding, but always superior. He could not freely mingle with the masses, because he scorned petty ways and many of the social customs that strongly tend to destroy individual worth and to undermine character.

He loved quietness, pure thought, pleasant associations, the endearments of home, and abhorred every manner of vice and hypocrisy. When he professed friendship he meant friendship pure, free from dross and unalloyed with selfishness.

While his ambition in his business relations was only limited by his strength, he was most temperate in his desires, his strongest being duty to his family, simplicity of life, modesty and to be associated in every good work with severely candid, unselfish, honest men.

Modesty was one of the virtues that adorned his character. While his mind was richly stored with that which was beautiful, true and good, with knowledge practical, it could not reveal itself excepting to his small circle of choice friends. With strangers he had no communion. To the general public, or to a large assemblage, he could not convey his thoughts.

In every walk of life, whether in private or public business, in offices of trust or honor, it may be truly said of him as Emerson said of his friend Judge Hoar that "Wherever he sat down honor came and sat down beside him."

"His youth was innocent, his ripeness marked by some act of goodness every day. And, watched by eyes that loved him, calm and sage."

Faded his late declining years away. Cheerful he gave his being up, and went To share the holy rest that waits a life well spent.

"Why weep ye, then, for him, who having now The bound of man's appropriate years, at last Life's blessings all enjoyed, life's labors done, Sincerely to his final rest has passed. While the soft memory of his virtues yet Lingers like twilight hues when the bright sun is set."

Detroit Notes.

The flower trade here seems to have altered a good deal during the past two years; it seems to be running in the line of better stuff. Trade is still very unlike that of eastern cities; for example, hybrid roses are almost uncalled for; the only big rose desired is the Beauty, and that is not sold in any large quantity. The demand for orchids is very small.

There is no doubt that the flower show last year aroused a good deal of interest

in such subjects, and the coming show seems likely to be a still greater success.

But the average Detroit is not a very generous patron to the florist. Even the rich people skim the decorations in a way that would make a New Yorker faint. The florists tell sadly of some wealthy society women who will haggle about the price of a basket to put on the table when giving a dinner, and then kill two birds with one stone by presenting the basket to some absent friend after it has done duty on the table. But perhaps the most aggravating customer the florist has to do with is the person who buys a cheap bouquet of common flowers at the market in Cadillac Square, and then comes into a flower store and asks the florist to arrange these flowers in a box so as to look pretty. This style of customer does much to imperil the future salvation of a Detroit florist.

Of course there are some good customers and real flower lovers, but a large proportion of the population is neither. Trade has certainly increased, for there are now four times as many florists as ten years ago.

Purely natural arrangement of flowers, such as obtains in New York, comes in but slowly here; the people still go in largely for designs, and the florists naturally have to fill the demand. Decorations are rarely elaborate, while the prices paid for stuff are very low compared with those of the east. Many flowers are used which are comparatively out of date in the vicinity of New York.

Visiting here in the summer two years ago the writer was struck by the absence of window boxes or any great amount of bedding around the large residences. A certain amount of bedding seemed to be done around the summer residences at Grosse Pointe, but in the city there was little to be seen. However, the Detroiters begin to get a little more ambitions in this direction, and it is naturally to be expected that they will gradually go in for more generous decorations and more liberal use of flowers.

EMILY LOUISE TAPLIN.

A Wedding Decoration.

A recent wedding decoration arranged by Siebrecht & Wadley was unusually elaborate, the florists being given carte blanche. At the church a novel feature was a double row of great scarfothias all the way up the center aisle, forming an arch of foliage all along, while loose bunches of flowers were tied to the outer arm of each pew. The chancel was banked with palms, relieved by flowers; orchids hung here and there about the palms.

At the house the decorations were very elaborate, the most notable being a library which was used as the ball room. This was a room about 70 feet long; it was unfinished, being newly built, so the decorators were at liberty to do as much nailing as they liked. The walls and ceiling were completely covered with hemlock, showing nothing but the soft green. Suspended in the center of the ceiling was an immense wedding bell of flowers, while around it were arranged nine other smaller bells. At one end of the room was a bank of palms, while other palms were distributed about the room to break any stiffness and monotony of the walls. Orchids were suspended from the palms.

A number of great plaques were arranged on the green walls, varied in shape. They were made, for the most part, of ivy leaves arranged with flowers, which took away the monotony of plain



EPIPHYLLUM TRUNCATUM VAR. ROSEUM

green walls. An immense number of lilies were used.

In another room was the orthodox floral canopy for receiving, while the rooms were further decorated with plants and flowers. The staircase, a very large and handsome one, was similarly decorated.

This decoration took a tremendous lot of stuff; it was certainly the most elaborate arrangement of the season.

E. L. T.

A Beautiful Plant.

The illustration of *Epiphyllum truncatum* (Lobster cactus) shows a plant growing at the Bussey Institute. A plant of *Pereskia aculeata* was planted eight years ago under a side bench and trained to a rafter of the greenhouse. The following March pieces of the epiphyllum were grafted on the pereskia. After the first year the graft began to grow rapidly and now presents a most charming sight hanging from the center of the house.

It measures from top to bottom 47 inches, and from side to side 41 inches, forming an almost perfect ball. Since Christmas I should say there have been picked from the plant over 1,200 blooms and it is still thickly covered with flowers and buds, having at this time nearly 500 blooms.

The plant has had no especial care except occasional tying to keep it from falling. It has one enemy, the mealy bug, but by syringing the plant during the summer months the bug can be got rid of. This cactus is a native of Brazil.

The flowers are large, of a deep scarlet color, rising from the truncate tops of the branches.

Nice pot plants can be obtained by growing the pereskia a foot or so in height and then grafting them and the following winter nice drooping heads of fifteen to twenty blooms will be the result. The grafting is easily performed as it consists merely in opening the hardened stock either on the side or top and then putting in the scion which can be held in place by a thorn of the pereskia.

The above illustrated variety is roseum. Among the others noticeable are: bicolor, white, edged with rose; elegans, bright orange red; magnificum, flowers large, white, tips bright rose color; spectabile, white with purple margin, and violaceum, large, pure white with delicate purple margin.

CHAS. J. DAWSON.

Jamaica Plain, Mass.

Some English Notes.

BY SAMUEL HENSHAW.

[Read before the New York Florists' Club Feb. 10.]

There is nothing strikes the florist so much in revisiting Europe as the great difference in the amount of sunlight, and in fact "daylight," in the winter months as there is between the two countries; and as we all know everything is in favor of America; of course there is more coal required here to keep up the proper temperature for the production of winter flowers. But that is more than offset by the abundance of light, and the clear skies to be seen in the neighborhood of New York in winter; and there is no flower grown for winter decoration that shows the ef-

fect of this abundance of light as much as the rose. All through the middle of winter and up to April there is a great scarcity of this flower in England. Even the so-called tea roses are scarce and poor in quality, and it is useless to attempt forcing any of the hybrid perpetuals until late in spring. The variety that is the earliest to bloom with good buds is the Noisette rose, "Gloire de Dijon." This variety and a few of the tea roses were exhibited at the spring show at Bristol in March, but were few and very much inferior to what may be seen in any florist's window in the middle of the winter in New York City. In the south and south-west of England the Gloire de Dijon rose is often seen covering the front of cottages, and in full bloom early in May. Camellias are still grown there by the florists, and as this flower does not require as much sunlight to develop its buds as many others it is likely to continue useful with them. But there are many flowers produced in abundance in the neighborhood of New York in the middle of winter that are not seen in England until far into spring. Even the Marguerites will not open until the days begin to lengthen, and the winter flowering orchids with us are not seen there until nearer spring. Hyacinths and tulips are forced there in large quantities. The Maiden Hair fern is seen everywhere, and in making up flowers it is always used. The made up wreaths, hand bouquets, and corsage flowers are always garnished with Maiden Hair ferns. But in all the floral designs that I saw until June the scarcity of roses was very noticeable. As soon as spring has fairly set in there is great abundance of the typical "flowers that bloom in the spring." Of these the auricula is the choicest, and is grown by many of the cottagers with all the old time enthusiasm that we remember as boys. The primrose is a general favorite, and picnic parties are gotten up to take a jaunt a few miles from the cities when the children, and many of the older people, revel in the fields and country lanes, gathering the cowslips, primroses, and bluebells. These trips to gather spring flowers are looked forward to weeks in advance and form one of the very pleasing features of rural life in England. For by the time these flowers are in bloom most of the song birds are in full note and in full sympathy with the typical May Day.

In all the cottage gardens there is a wealth of wall flowers, stocks, polyanthus, the red and white double dwarf daisies, ariculas, pansies, the several varieties of the *Phlox subulata*, and saxifrages. These are replaced later on by the regular summer flowers. Musk is always found in an old garden, also moss roses, sweet brier, peonies, iris, hollyhocks, and lads' love, not forgetting the columbines and Turk's cap lilies. A favorite edging for the cottage flower gardens is the dwarf sea pink, and the London pride saxifraga. I was pleased to notice a gradual return to the old time herbaceous borders in some of the large places, making collections of the old and almost forgotten Grandmother's flowers. When summer has fairly set in hardy roses are abundant, and in great perfection. The flower shows are well patronized, and splendid plants of azaleas, orchids, cypripediums, ixoras, and the choicest of stove and greenhouse foliage plants are taken from Chettinham, Bath and to the London and Manchester exhibitions, and vice versa apparently without injury. I noticed at the Manchester flower show the various groups of plants exhibited were arranged on grass terraces laid out ex-

pressly for these exhibitions. This had a much more pleasing effect than the old time wooden benches; and at this show, which took place in the middle of June, there was a grand collection of specimen orchids in bloom. At both the Bath and Chettenham shows there were superb lots of orchids, and the collection of stove and greenhouse plants shown by Cypher & Sons, of Chettenham, were the finest I have ever seen exhibited.

Plant growing in or near the large cities in England is up-hill work, on account of the dense smoke from the many manufactories. But there are some plants that seem to be impervious to an impure atmosphere. Among these may be mentioned the chrysanthemum, pyrethrum, saxifragas, and among shrubs the rhododendron, dwarf elder, and the black poplar among trees. The hawthorne is everywhere and takes the same place in the landscape that dogwood does here, only the dogwood has no perfume. The laburnum and the mountain ash also grow well near the smoky towns. In the south and south-west of England the American live oak grows as well as it does in South Carolina, and the *Aruncaria imbricata* is apparently as much at home as in its native Norfolk Island. Other American plants do fairly well. I saw some *Magnolia grandiflora* fifty years old, and tulip trees older yet but not more than forty feet high. Some of the yuccas attain a patriarchal size and are never protected. I saw plants of the *Eucalyptus globulus* that had stood several years without protection in Somersetshire, and camelias in sheltered places in the shrubbery borders that had been there many years. Fuchsias are also hardy there, but the catalpa, altheas and many other plants common here will not live through the winter there. The *Sequoia gigantea* (or as they will persist in calling it there, the "Wellingtonia gigantea") grows well all through the south and west of England. Also both the Cedar of Lebanon and the Cedar of *Deodora* thrive well.

Hardy Herbaceous Plants.

BY WM. FALCONER.

A selection of hardy perennials depends upon circumstances—what you want them for, soil, situation and locality. Many florists will grow them chiefly for cut flowers, and others for stock for sale to amateurs, but all will want to get real good, showy, easily grown kinds that are ornamental in themselves, serviceable for cut flowers and hardy generally. These I will now deal with and leave for future papers special plants for special purposes.

During the summer months we have a large abundance of annuals as nigette, asters, sweet pens and zimias; tender plants set out of doors as geraniums and heliotropes, and an assortment of bulbous and tuberous plants as montebretias, gladioluses and dahlias, and all of which add so generously to our cut flower supply, that there is less demand upon summer-blooming perennials for cut flowers than there is in spring and early summer and again in fall, therefore it may be to our advantage to bear more heavily upon the early and late blooming sorts.

In the following list I have endeavored to cover the whole season from April till October, and the plants named in it are good, common, well-tried, well-worthy sorts, ornamental as garden plants and useful for cut flowers:

Daffodils,

Poet's Narcissus,



DICTAMNUS FRAXINELLA. (REPRODUCED FROM LONDON GARDEN.)

Tulips,
Trillium grandiflorum,
Arabis albidia,
Dicentra spectabilis,
Iberis sempervirens,
 Lily of the Valley,
 Paeonias,
Pyrethrum roseum, double,
Hemerocallis flava,
Fraxinella,
 Oriental Poppies,
 Clematises, early flowering,
Gaillardia grandiflora,
Lilium elegans in var.,
 Pinks, hardy, double white,
 German Frises,
Lychmis Chalcidonica, double scarlet,
Corceps lanceolata,
Clematis erecta, double,
Campnula persicifolia alba and double,
Rudbeckia speciosa,
Veronica longifolia subsessilis,
Delphinium, garden "hybrids,"
Phlox decussata, vars.,
Gypsophila paniculata,
Iris Kämpferi,
Yucca filamentosa,
 Hollyhocks,
Hemerocallis Thunbergii,
Achillea Ptarmica fl. pl.,
Helianthus multiflorus,
Platycodon grandiflorum white (true),
Euphorbia corollata,
Clematis Davidiana,
Lilium speciosum,
Phlox paniculata vars.,
Funkia grandiflora,
Chrysanthemum maximum,
Pyrethrum uliginosum,
Anemone Japonica, white,
Tritoma in var.,
Clematis "paniculata",
 E. Ind. Mountain Fleecce.

The common daffodils, single and double and the lovely bicolor, also the common doubles as Orange Phoenix and Sulphur Phoenix are hardy enough and long lived. The Poet's Narcissus is also one of the hardiest, easiest to grow and most multiplying; and we should also have the early-blooming form, ornatus. Besides the regular run of tulips have a lot of parrot and Gesneriana for late flowers.

Trillium grandiflorum grows wild in the greatest abundance in many parts of

the north and takes to cultivation very kindly, also may be forced year after year.

Arabis albidia in April is a sheet of snow white flowers. It spreads in mossy-like patches and seeds freely.

Dicentra Spectabilis or Bleeding Hearts is common in every old garden. Propagate by division or from cuttings which may be obtained in quantity if the old flowers are cut off as soon as faded.

Iberis sempervirens is the commonest and best of the evergreen candytufts, for it is the hardiest. Flowers white, in the greatest abundance, very early and lasts for several weeks.

Lily of the valley, to grow it well, give it a moderately open position, good ground and an annual dressing of rotted manure. Don't grow it in the shade if you want flowers.

Paeonias; first come *tenuifolia* and the old double scarlet and the tree paeonias, and these are succeeded in June by the gorgeous herbaceous sorts of which now we have a rich assortment. All are hardy and sure bloomers.

The double pyrethrums, white, pink and crimson, are excellent for cutting, and the plants multiply freely. There is quite a demand now for the single forms.

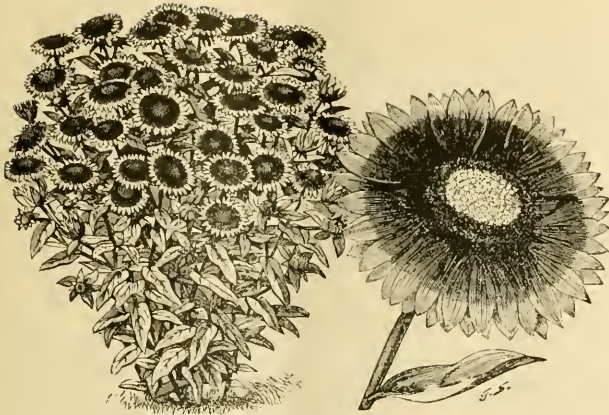
Hemerocallis flava is the early clear yellow day lily, but *Dumortieri*, orange-yellow, opens ahead of it. Later on we have *graminifolius* and *Thunbergii*, both yellow. The tawny colored ones are hardly to be considered for cut flowers. All hardy, free growing and sure blooming. Easily multiplied by division or from seed.

The white *fraxinella* is a handsome garden plant, so too is the purple; they live "forever" in thin shade or open, and bloom profusely, but their disagreeable odor and sticky flowers excuse them from the flower basket except for immediate home use.

The whole poppy family are a gorgeous race and none more so than the Oriental. If cut the morning they first open the blossoms will last well for a couple of days. And this is peculiar of most poppies.

A very persistent perennial and spreading underground.

Clematises. Florists should grow a



GAILLARDIA MAXIMA



CHRYSANTHEMUM MAXIMUM

good many of the garden "hybrids," early, middle season and late; if cut when they first open their flowers they can be made great use of. Among the non-climbing sorts erecta is the best, but be sure you get the double flowering variety of it, as this is the whitest. Davidiana, blue, very fragrant, has recently come into prominent notice, it is hardy, copious, late and well worth growing. "Paniculata" isn't the name of the kind that is sold under this name, but no matter, this clematis—one of the fleecy white ones, is indispensable for September flowers, so get the plant and never mind the name.

Liliums are peculiar in their behavior. The many forms of elegans come in early, so too do tenuifolium, and as the season advances we have candidum, longiflorum, superbum, auratum, double tiger, and last of all the beautiful speciosum. You have got to try the different kinds and hold on to the ones that thrive best with you. Strange though it may seem, Haussoni, one of the most expensive of lilies, thrives and multiplies like a weed with me, candidum dies out with disease and Japonicum refuses to be comforted.

The common double white hardy pink comes in abundantly in June, and I make

edgings to the borders with the plants and lift, tear apart and replant them in spring, but they blossom all the same. The "hardy" Scotch pinks in frequent use often behave better when wintered in frames than when left out doors.

The perennial gaillardias are forms of *G. aristata*, but nowadays we have gotten grandiflora, maxima, and a host of others differing from each other in the size and marking of their flowers. They come in in June, and last more or less in bloom till November. Easily raised from seed and perfectly hardy.

The iris race is a big one and great is the confusion that reigns among them. Beginning in March or April with reticulata we pass on in May to pumila, then cristata, and into the great German group and weedy Siberians till we wind up the season, early in July, among the gorgeous Japanese *Kaempferi* varieties. Although all can be raised from seed, the only way of increasing the finer forms true to kind is by division, but from seed, especially among *Kaempferi*'s, we get lovely flowers.

The double flowering scarlet *Lychnis Chalcedonica* is one of the handsomest of hardy flowers, and the blooms last for weeks. But it is slow to increase.

Corcopsis lanceolata is the prettiest and most useful of its race and easily raised from seed.

Among campanulas, *persicifolia alba* is desirable, and especially so is its double form. All are easily increased by division, and the single also by seed. The platycodon is also a bell flower. Be sure you get the pure white variety and not the bluish white one.

Rudbeckia speciosa often catalogued as *R. Newmanii*, is, I think, the handsomest black-eyed-Susan grown; the flowers are showy and the plant compact. Easily gotten up from seed, and the plants live for years.

Of all the tall speedwells I look upon *Veronica longifolia subsessilis* as the best. It is a capital garden plant, but I fail to find any enthusiasm for this style of blossom as cut flowers.

In the way of delphinium or perennial larkspur we have recently made great strides, and the Rochester and Passaic hybrids are equal to any of Lemoine's that have come among us. Hardy, showy and gotten up in any quantity from seed. Grow also a few of grandiflorum, the habit and the color are good.

In early spring we have running phloxes as *amanea* and *reptans*, then we pass into summer with the *decussata* section, which are very useful for cutting, and move on into late summer with the army of panicle phloxes, so pure, so bright and so variously colored. Easily raised from seed, but only perpetuated in variety from division and cuttings of the young sprouts.

Gypsophila paniculata is very useful where airy, sprayy flowers are needed. It will live in poor sandy land if need be, for it makes deep-reaching tough fleshy roots that live forever. Increased from seed. The *Euphorbia corollata* comes in after it. This too strikes its roots down deep into the earth, and is better increased by root cuttings than in any other way.

Yucca filamentosa should be grown for its generous blossoms and its ornamental character generally. The plants are easily raised from seed, but the seedlings have got to be several years old before they blossom. Once planted it seldom dies out.

All florists who grow miscellaneous flowers grow hollyhocks, and by a system of fall and winter sowings and cutting back manage to have hollyhocks continuously from July till frost.

Achillea Ptarmica fl. pl. is grown in large quantity by many florists because it keeps in bloom most all summer, and its little white flowers are so useful for "making up." Increased by division and cuttings.

The white day lily (*Funkia grandiflora*) is indispensable, and welcome indeed coming in in August and September. It loves good ground and a shady place. Division.

Helianthus multiflorus or rather the large-flowered form of it and the double variety come in real handy in summer and last a long time. By cutting them down in June they bloom some weeks later than they would if not cut over. But it isn't reliably hardy. If you take up a clump or two in fall and winter them over in a frame, cellar, or cool greenhouse you can propagate from them any amount of plants in spring, and all will bloom in summer.

Pyrethrum uliginosum furnishes myriads of white daisies in September. It loves good ground, plenty room, timely support and to be lifted, divided and replanted every second or third year. Propagated by seed or division. *Chrysanthemum maximum* is also a fine large

white daisy useful for cutting, but grows only about two feet high. Increase in the same way.

The tritomas or torch lilies should find a place; from midsummer till December they yield their showy spikes. The forms known as *grandiflora* and *nobilis* are the best among common sorts, and corallina the freest blooming of all. But they are not reliably hardy, and require either heavy mulching outside or to be lifted and wintered in the shed or cellar. By seed and division.

Florists living in mild localities should grow some of the mountain fleece (*Polygonum amplexicaule oxyphyllum*) for its fragrant fleecy blossoms which appear in October in such plenty. While the roots are hardy early frosts destroy the blossoms.



Cost of Production.

The cost of labor and material used in the manufacture of any given article with the expense of putting it on the market and converting it into cash, constitutes the bulk of its net cost to the manufacturer. It is therefore obvious that a person devoting his time and capital to the construction or manufacture of such given article, should, in a measure, possess the prime factors of knowledge necessary to the successful prosecution of his particular industry. Now the florist is no exception to the rule, he is just as much a manufacturer as is the man who devotes his time and money to the fabrication of any other article of use or ornament, and it is just as important that he should work with his eyes open as if he was engaged in any other industry. It is a very important matter for the florist to know after a year's struggle with difficulties whether he has lost or made money by his year's effort, and if he has made money it is just as important that he should know in what way he has made it, and off what particular branch of his business; he can then devote himself to the paying part, and let the unprofitable parts of his business alone.

I have been asked to furnish the readers of the *FLORIST* with a paper showing the approximate cost of the production of carnation flowers. Of course I can only do this so far as my own observations and business are concerned, and in order to present the matter in as simple a form as possible I will use one house for the purpose, in which carnations have been grown for the last four years.

The house is 120 feet long and 18 feet wide and contains about 2,240 plants, all colored varieties; the number of flowers at every gathering are put down on a slate which hangs conveniently for that purpose, and at the end of each month the total for the month is entered in a book provided especially for that object. During the year 1889 the total number of carnations gathered from this house, all with long stems, was 74,849, the greater part of which were sold in my own store at retail, at different prices according to the time of the year, but for the sake of convenience I put the uniform price of two cents each or \$2 per hundred which amounts to the sum of \$1,496.98.

The house in question is one of a set of

six which I had built four years ago and are alike in every particular, and cost with heating apparatus, ventilating gear, double thick glass, three coats of paint, etc., about \$14 per running foot for each house, which for the one in question would amount to \$1,680, the interest of which at 6 per cent per year would be \$100.80.

The estimated present value of the land which these houses occupy is 60 cents per square foot or \$1,500 per city lot of 2,500 square feet, which for the 2,160 feet occupied by the one house would amount to \$1,296, the yearly interest of which at 6 per cent would be \$77.76.

In these houses I regularly employ three men, and one man at same rate of pay Sundays, one sixth of the whole time chargeable to this house would be 182½ days, which at \$1.50 per day amounts to \$273.75.

Fourteen tons of best coal at \$5 per ton is \$70; three days extra labor moving old and putting in new beds \$7.50; city water at \$130 per year; this water also supplies my dwelling house, outside frames, etc., so I charge the house with one tenth, \$13; preparation of soil and manure \$20; wear and tear of hose \$5; tobacco stems and other odds and ends, \$5; yearly cost of paint outside and most exposed parts inside, all done with same men during summer, 100 pounds best white lead and three gallons best linseed oil, \$8; annual share of telephone service, \$18; general wear and tear of the house per year, \$50; which is all the expenses of which I have any record, and which amount in the aggregate to \$648.81. And which being deducted from the sum realized for the flowers leaves a net profit of \$848.17, making the actual cost of the flowers a little less than \$9 per thousand.

By way of recapitulation I would mention that the annual coat of paint reduces the wear of the house to a minimum, especially as the very best material is used, the inside of gutters and lower ends of sash bars being painted same as outside, I have no doubt makes the yearly loss in that respect less than I have put it. I may also add that the carnation cuttings taken from this house, although rooted and prepared in other houses, would add at least 15 per cent to the net profit, as no additional labor, fuel or other expense was incurred.

The varieties grown at first end of the year were Grace Wilder, May Queen, Portia, Anna Webb, Buttercup and two or three other sorts in small numbers, with Tidal Wave added at last fall's planting. H. E. CHITTY.

Paterson, N. J., Feb. 10, '90

The Carnation Belt.

Mr. Chitty strikes the key note when he says that the cause of carnations being a success in Chester county is that the growers take a pride in and devote themselves almost exclusively to carnations.

Any one with almost any soil can find some carnations that he can grow profitably, by trying various sorts and carefully noting those that do best with him. Mr. Chitty no doubt noted the absence of *Hzne's* in the section named. One of the growers there tells me that his *Hzne's* did not grow any outside and did not bloom until spring. Almost any grower will find that there are some varieties that do better than others on his soil and some that are a success with others he can not get satisfactory results from himself.

I have also found that some do better on solid beds, some on benches. This is notably illustrated by the fact that a few

dozen *Lamborn* on a solid bed did very poorly while those on a bench were exceptionally fine. *Hzne's* were just the reverse, those on solid beds are much better than a few planted on benches.

Among the newer ones the best with me are *L. L. Lamborn* (white), *Pride of Kennet* (crimson), *Tidal Wave* (pink). *Grace Wilder* has found its rival in *Christmas*, and when Mr. Starr introduces his *Golden Gate* we will have a yellow that for color and finely formed flowers can not be excelled.

Lancaster, Pa. A. M. HERR.

Propagating From Forced Plants.

Mr. E. S. Bartholomew, Westfield, N. Y., whose greenhouses were destroyed by fire February 13, writes:

I had two years ago instituted a series of experiments to determine how much the continued propagation for stock, from forced plants, had to do with the decline of the vital forces of our plants used for cut flowers; and whether to that cause alone the many diseases to which the carnation is liable, was not directly traceable. So far as had been done it very distinctly pointed in that direction, but all my stock under process is now gone without determining full results.

The Increase of Bulbs.

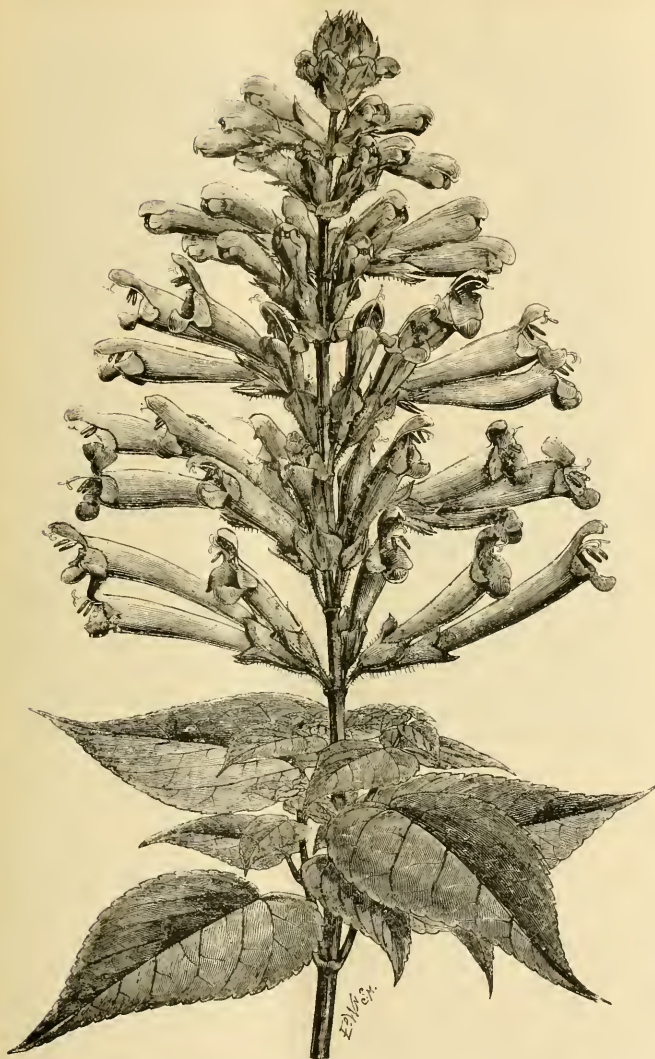
The capacity of a seed, plant or bulb to multiply, if given a few years time, would appear almost incredible to those who had never given the subject much study.

It is not uncommon to hear of a farmer who has given a child a lamb the increase from which the child is to have when he is 21. Why not encourage a child to grow a choice bulb until he is 21? One of the very best standard varieties should be selected, a variety that will always sell and if properly cared for, the increase of which would afford him the means for an education.

I can remember when I would hardly look at a gladiolus. But one day I saw some good ones, and from that time I have been growing only the best, with both pleasure and profit. Those who think they do not like them can not have seen the improved varieties. A few spikes make a lovely bouquet and they are very easy to grow; if you have no market grow only those varieties that will create a market.

I thought I would take one gladiolus bulb and ascertain what the increase would be in five years. I selected *Mme. Monneret*, because at that time it was the prettiest one I had seen, and I find it still a good variety. It blooms late, fine spike, a pleasing shade of pink that makes it valuable as a cut flower. In the spring of '86 I planted one small bulb; in the fall of the same year I had one large bulb and over forty bulblets to plant out in the spring of '87. In the fall of '87 I had forty small but blooming bulbs, and by actual count 500 bulblets. In the fall of '88 I had 500 small but blooming bulbs, and by actual count 4,500 bulblets. In the fall of '89 I have 500 three year bulbs, 4,500 two year bulbs, and the bulblets I had not the patience to count, but thought 50,000 would be a low estimate. Next year would be five years and I easily could have 50,000 bulbs if it was not for selling them as soon as they become marketable. I think that 50,000 from one bulb in five years ought to encourage the most indolent, showing what a rich mine lay in one small bulb.

It is generally believed that as good bulbs can not be grown in America as in Holland. Select the soil, climate and



SALVIA SPLENDENS VAR. BRUANTI. COLOR OF FLOWERS BRIGHT SCARLET.

take the same unceasing care and who could tell the difference between a lily, tulip or hyacinth grown in America or Holland. They are oftentimes obliged to dig their bulbs before fully ripe, and that with the journey will offset some of our disadvantages. The time was when everything to be good and salable had to be imported, but owing to our American enterprise that time is gliding swiftly by.

I have a fine double pink hyacinth that I have grown for twenty years. It is perfectly healthy and gives a good spike with ordinary care. Bulbs are individuals and can not run out, although by abuse they can be run down. If not too long neglected they can be restored to their

former beauty if given a fair chance. I dislike to hear any one say a plant has "run out" when it is suffering from abuse.

MRS. EVELYN ARNOLD.

Grand Rapids, Mich.

Lilium Harrisii at the Holidays.

On page 262 Reader asks how to have Lilium Harrisii in bloom at Christmas and New Years.

When the lily was first advertised I bought a few, also a few longiflorum. Potted in November in 7-inch pots, soil rich and made light with sand, fine charcoal and coal ashes; grew all winter near

glass in a light warm house. Flowered Harrisii; no flowers from longiflorum.

Bulbs were ripe in early spring; placed pots in cool shady place outside on their sides. In July shook out bulbs which were very large, cleaned off dead roots, carefully saving live ones; repotted as before, putting one inch of broken oyster shells in bottom; the tips of bulbs just showed at top; placed in cool, partially shaded place; as they sprouted moved them into a sunny, well sheltered place. Early part of September placed in a house sloping south and when plants were nine inches high repotted into 10-inch pots, some of the strongest into 12-inch, potting plants two inches lower in pot.

In a copper kettle I put two quarts steam-rendered bone, $\frac{1}{2}$ pint each muriate of potash, nitrate of soda, sulphate of ammonia, guano, one quart tobacco ashes and filled kettle with drainings of heap of dressing, mostly cow. To three gallons of warm water $\frac{1}{2}$ pint of liquid was added, and this was the water with which the lilies were watered every time, but they were not watered until necessary.

First flowers of Harrisii November 10, of longiflorum December 3, and every flower of all cut before January 1. Before flowers were open some plants began to show strong shoots from the bulbs, and a second crop of flowers, full as large as first, was cut before or at Easter, from longiflorum as well as Harrisii. Although the longiflorum were nearly a month behind others the shorter petal and greater substance made packing easier. I also succeeded with Bermuda bulbs first season by potting as early as obtainable.

For the three years that I have forced these lilies I sent them to Doyle, Boston, entirely I believe without competition before Christmas. FRANK BUFFINTON.

Fall River, Mass.

Salvia Splendens var. Bruanti.

For flowering during the autumn and winter, there are no plants more showy and valuable than salvias, of which there are a great many varieties, embracing a wide range of color, some being of a very bright scarlet; these are remarkably telling, the first among them being *S. splendens* Bruanti, which, besides its tall spikes of brilliant bloom, has beautiful foliage, the contour of the plant is pleasing and striking; and it is only about half the height of *S. splendens*. To have this salvia in really good condition, it requires more heat than an ordinary greenhouse affords, the most suitable temperature being 50° to 55°, in which it will continue to branch out and flower with freedom.—*Gardeners' Chronicle*.

Freesias.

Mr. Falconer's notes on *Freesia refracta* bring to mind the way it varies with me. I have one strain that always gives me, under whatever condition grown, small flowers and seldom more than six or seven on a spray; this came originally from a firm in New York city. Then I have another strain obtained from another firm, the flowers of which are nearly double the size of the first named and never less than eight flowers on a spray. What can make the difference?

Chatham, N. Y. R. E. SUFFELT.

SLUGS.—I can sympathize with Mr. L. P. Cutler. The same slug has been troubling me, and not only among violets, for they eat the pansy buds so as to render the flowers worthless. I hope some one will be able to give a remedy.

R. E. S.



Hints for Beginners.

BY WM. ROBINSON, NORTH EASTON, MASS.

I would advise growing cattleyas in baskets and they should be kept well up to the light and have plenty fresh air. When in active growth, that is when developing their pseudo-bulbs, they should get plenty water, in fact, they should not be allowed to get dry. They do not require much potting material, but what is used should be put in firm around the plants. A night temperature of 60° in winter with a rise in the day time to 68° or 70° is about right; and I always prefer having a little ventilation, however slight, from below, and very little on the top, it keeps the atmospheric moisture in the house. In the summer time the night temperature should be as low as practicable, say 65°, with a good rise in the day-time, say to 80°, with plenty of ventilation and moisture, and shade from hot sunshine, otherwise the plants will get yellow-looking and then they are not so pleasant to the eye.

Odontoglossums, in summer, should be kept as cool as possible, given abundance of fresh air and never allowed to get dry, in fact, it is well to hose them overhead every day. Repot as small as possible, in September, and allow the temperature at night to fall to 45° and in the day-time rise to 60° and keep shaded for at that season they begin rooting and growing.

Cypripediums should never at any time be allowed to get dry, they are moisture-loving plants, and delight every day in plenty of water, but of course care must be taken that the plants are properly drained. Should you ever detect damp-spot on your plants be assured you are growing them in too close and shady quarters, so give the plants more sunlight and that will stop the spot.

Dendrobiums should be grown near the light and only partially shaded. While growing, all basket plants require plenty of water until they have finished their growth then they must be gradually ripened, and afterwards, if removed to a cool house they can be kept back as long as desired.

Cecylonyes should be grown in a good exposed house, near the glass and kept cool. They delight in plenty of air, and when growing in abundance of water. If grown slow they are sure to flower.

Laelia anceps should be grown in a sunny south-facing house and have an abundance of air. Allow it to grow on slow, and while growing it should never be dry.

Cypripediums at Mr. DeWitt S. Smith's, Lee, Mass.

On a recent visit to this handsome collection of plants, the first thing that attracted my attention, was a fine lot of well grown *C. Spicerianum* in full bloom; they were in 7 and 8-inch pots, each one bearing from sixteen to twenty blooms, many of the scapes being twin flowered. I also observed a grand specimen of *C. callurum*, which had produced six strong flower spikes well laden with flowers; by its side was a plant showing flower, of the scarce *C. Schomburgkianum*, also

C. Arthurianum, a very rare hybrid between the beautiful *C. Fairieanum* and *C. insignis*, a fine variety handsomely marked and very showy. *C. lucorhodium* was exceedingly fine having produced three flower spikes, and the chaste *C. acanthum* and its variety *superbum* was well represented, several plants being well bloomed.

It would occupy too much space to name in detail all the fine orchids seen in bloom but mention might here be made of some fine *Laelia anceps* varieties, and cattleyas which were well furnished with flower spikes. Some fine *Saccolabium giganteum* were also well bloomed and crowded with spikes. Several of the scarlet flowered *Sophrontes grandiflora* were seen in perfection, for the whole of which great credit is due to Mr. E. Norman the gardener, for the successful way in which he has brought this collection to its present fine condition.

PETER MACDONALD.

Summit, N. J., Dec. 11, '89.

Odontoglossum Pescatorei.

(Ornate-tipped Variety)

Several handsome varieties of *Odontoglossum Pescatorei*, with spotted sepals and petals, which have appeared among importations, render us familiar with forms of that kind, and reference to our illustration of *O. P. leucoxanthum* from Baron Schröder's collection, demonstrates that there is at least one plant of *O. Pescatorei* which has flowers wholly white, except for the tinge of yellow in the center.

For another extraordinary variation in which the purple spotting, more commonly to be seen on the petals, is also displayed on the labellum, we are indebted to Sir Trevor Lawrence, Bart., M. P., the president of the Royal Horticultural Society. It is noteworthy, too, that with the spotted forms, as with the pure white variety alluded to, the flowers display a marked advance on those of the type in size and substance, thus making them doubly welcome in gardens.—*Gardeners' Chronicle*.

Steam Heat for Orchid Houses.

BY WM. ROBINSON, NORTH EASTON, MASS.

For a large establishment I would rather have steam than hot water. And I prefer it particularly as we have it here, governed by electric pneumatics having a thermostat in each house with a switch having a radius of 15 degrees. Each valve in our supply pipes is governed by a diaphragm which is connected with a pneumatic supplied with a small air pump. This is connected with an electric pneumatic which is connected with the thermostat.

Assuming we do not wish the temperature of the house to rise above 75° we set the switch at that point, and if the temperature rises to that point the thermostat expands and touches the electric strip which opens the electric pneumatic and the pressure of air closes the diaphragm. The temperature falls two degrees and the strip contracts, touches the opposite point, closes the air supply, opens the pneumatic tube and the pressure of steam opens the valve. At night time we turn down the switch to the point we require, if to 60° we turn the whole radius.

For the cattleya house we have the radius from 70° to 55°, the East India house 75° to 62°, *odontoglossum* house 60° to 45°, *phalaenopsis* house 80° to 65°, *masdevallia* house 55° to 45°, and the *Odontoglossum vexillarium* house 60° to

50°. If we should want any point between these figures we only turn a third and it allows 5 degrees. We can alter the points any time and set them at any point we like, so you will see the advantage of steam with this arrangement over hot water.

Assuming it has been an extremely cold night and one has got the hot water pipes extremely hot, and it comes a hot sunny day, what happy conditions for thrips, red spider, etc. Again, should the day turn out extremely cold, it would possibly take one all he could do to moon to get the temperature of his East India house up to where it should have been at 8 o'clock in the morning. By steam we can get up the temperature to what we please and when we please, and we can use water abundantly to moisten the atmosphere, uncongenial quarters for dry air loving insects.

Tuberous Begonias.

Having many inquiries about tuberous begonias, their propagation, culture and adaptability for various purposes, I will give through the *FLORIST* our methods of treating them.

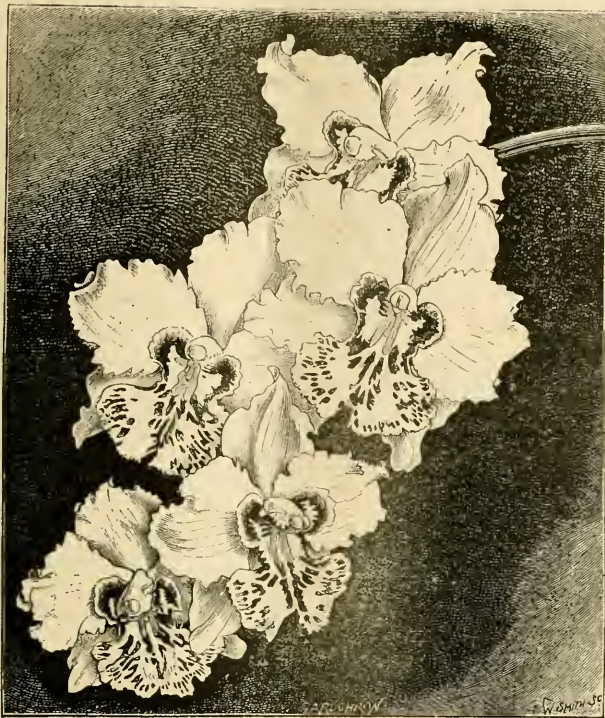
The most rapid way of increase is by seed. The seed is about as fine as dust, and while it is not a difficult task, as the seed germinates readily, still it will be found a delicate operation and one that requires constant attention for a couple of months from the time of sowing seed. We sow in flats 2½ inches deep, being preferable to pans or pots as we can control the moisture better; ours are made of ½ inch stuff 12x18 inches, use lath for bottoms, fill about two thirds full of fairly coarse leaf mould and sand or any material that will not become sodden, about an inch of leaf mould and sand finely sifted placed on top, now soak thoroughly, be sure to have level surface, as soon as water has fairly soaked through sow seed, sift over it with fine flour sieves a slight covering of leaf mould.

There should be something over this until the seed comes up, we have tried glass laid on top of box, but this requires attention in removing moisture that accumulates on under side of glass and it is difficult to moisten the soil if it becomes dry. Another covering, and a good one, is common, coarse brown paper, place this directly on the soil, if necessary the soil can be moistened by watering the paper; being porous the water passes through. But the best material we have found is sphagnum moss, the longer the fibre the better; cover the soil completely with a thin covering, this will preserve about the right moisture, still if it should become dry you can water freely, as the moss will prevent any washing.

Of course watch must be kept under the paper or moss and as soon as the tiny plants appear remove this covering. Now place a glass over the box for a few days until all the plants are well above the soil. Admit air and harden gradually, as soon as possible after second leaves appear prick out in flats or pot off in thumbs.

After removing paper or moss we do not water with the rose, but place the flats in water so it comes level with soil and it soaks up throughout from the bottom. If watered with the rose more or less of the little plants are apt to be washed out.

Once the plants have taken hold after transplanting it is surprising how fast they grow, in one month one could hardly believe so small a beginning would produce such a plant. The way we transplant the seedlings, we loosen them from the soil and lift them with a wet pointed stick, or a stick with a notch in the end,



OONTOGLOSSUM PESCATOREI VAR.

they are so small that they can not be picked up with the fingers; for first potting we use quite porous soil, say leaf mould, loam and sand.

The finer named varieties of course can only be increased by cuttings, which I am sorry to say are only sparingly produced by some varieties, in fact by most of them. The tubers do not take kindly to having successive batches of sprouts removed like the dahlia, but they all produce more or less.

The best cuttings are the sprouts and side branches when about two inches long, the poorest being tops. They can be rooted in cutting bench or flats or singly in small pots, the latter we use with the finer varieties. All that are started before July 1 we pot on, the earlier ones are shifted on to 5 or 6-inch pots and make as fine plants as we grow.

All that are started after about July 1 are left in the flats or pots until started the next spring. Propagating is continued through September; if the cutting fairly callouses and throws out a few roots the tops will dry off and the embryo tuber will start in spring and make as good a plant as a tuber two inches in diameter. I prefer a small tuber to grow a specimen plant from.

The tubers should be started in March and April and not until they show signs of growth, which is the starting of the pink buds on crown of tuber. Do not try to force them, let them take their own time and I assure you they will grow fast

enough to satisfy any reasonable expectation. Use any good porous soil, not too light. We use leaf mould and loam; if the loam is not sandy add some sand. We are not over particular as to soil, using any good soil we have on hand.

Our leaf mould is the mould gathered in the woods and laid a year or so in pile, turned two or three times. Shift on as fast as roots fairly fill the soil until they begin to bloom.

If grown in house they require plenty of fresh air and shade from direct rays of the sun. For planting out from pots or flats it can be done as soon as danger of frost is past or the dry tubers can be planted the same time as gladioli.

Those that are grown in pots, as soon as done flowering in November, can be dried off, and as soon as the stem parts from the tuber can be stored away in pots or shaken out and put in boxes. Those in the open as soon as tops are touched with frost can be taken up, placed in dry shed free from frost, the stems will fall away from the tubers in a few days, when they can be placed in boxes.

How and where shall we winter them? In the pots in which they grew (which should always be done with late struck cuttings), in boxes or in heaps, anywhere that they will not be frozen or baked. The best place is a cool cellar, one that will winter potatoes will keep begonias all right. We have had them under the benches in the greenhouse where they were perfectly dry and where the drip ran on

them, in both positions they came out all right. I will guarantee them to keep all right if put in boxes and covered with soil or sand stored in any place where a potato will keep. They will keep as long and as sound as the potatoes. I never handled any tuber or bulb that can be wintered with so little care, and this one fact will add much to their popularity.

The singles only should be used for bedding unless it should be some double like Louis Bouchet. We planted out quite a lot the past season, they all grew vigorously, flowered freely and were not affected by the sun. I am sure they will be a success as a bedding plant as soon as a stock of suitable varieties can be worked up or a strain of seed produced that will give plants of uniform height and color. They should be medium sized flowers of the erect section, or those, to use the English of a certain foreign grower, "that present themselves right straight forward to the beholder."

In the doubles we have a great variety of form. Some resemble camellias, others are like a hollyhock in form, not substance. The beautiful rose form, peony form, another class have a form of their own, I should call them the nosegay form. The flowers of this class are of the largest size, each bloom is made up of a number of small individual flowers, each having a foot stalk of its own. As the flower obtains age they become more distinct until they resemble small bouquets of pompon flowers. Among the varieties raised by Van Houtte are many of this class of which the Prince of Battenburg is a fine example. I have had flowers of this class remain in perfection for three weeks, in fact, all the double begonia flowers are very persistent.

Still another class, fuchsia form. The resemblance is carried out in the plant as well as in the flower. The tuber throws up a main stem about two feet high regularly branched, with small pointed leaves covered with bright scarlet drooping flowers. This variety I believe will make a fine bedding plant and can be rapidly increased by cuttings. A temperature of about 65° is what seems to suit them best, always see they have plenty of fresh air. We start our seeds in same temperature, only give bottom heat, the latter is not essential.

A more brilliant mass of color can not be imagined than a house full of tuberous begonias in full flower. The varied coloring, scarlet, yellow, white and all the combinations and mixtures of these colors with an amount of bloom that is almost incredible makes a show that for brilliancy and richness will long be remembered, and this display can be kept up for five or six months.

F. J. MEECH.
Charlevoix, Mich.

The Night Man.

Considerable has been said lately concerning the night man, and in order to keep the ball rolling I would like to put in my little orr. I agree with Mr. Falconer in that the man doing night duty can do considerable work besides tending the fire. But Mr. F. can not have a steam plant, because a steam boiler could not be left long enough to drive three miles to a railway station to fetch him home. In a recent issue Messrs. Gooding & Leitch, of Cleveland, seconded the matter, but in a different style altogether. Now it is not so much in what they say as in what they don't say that the flea bites. We must infer that they employ a night man, and also that he don't give satisfaction.

Now I am doing night duty and the least I can say is, I have a pretty hard

man to work for. Just let me cite an instance. Until a month ago so sure as I would arrive at the greenhouse at 6 p. m. the temperature of each house would be way down, the flues (I have a steam plant) of the boiler full of soot, the water in the boiler down below one gauge, grate bars full of clinkers and the ash pit full. In less than thirty minutes after I got to work my boss would go in the houses and expect to find the temperature exactly as he wanted it. Now it is impossible to clean the flues, the fire, fill the boiler and get a fair temperature in the houses in less than an hour. Invariably I got a raking over and as my boss is a foul mouthed man, I got the full benefit of all the sheol language he could think of; sometimes the air got so sulphury it was unnecessary to burn sulphur for months at a time, and the glass got as blue as a clear sky. But things have changed lately, we have a new day man who makes it his business to look after the fire and temperature by the time I arrive and so now every thing is lovely and the goose hangs high.

Now a word to Messrs. Gooding & Leitch and others who employ a night man. Don't expect him to do impossibilities, use judgment and discretion; if you find a house a few degrees higher or lower than you want it, don't curse and swear at the man, tell him gently; he has feelings as well as you. If he asks for a job don't tell him you can't trust him to do anything without you at his elbow; then again, don't set him washing pots, that is a poor job for night time. I hate it and so does every other night man that is not a Chinese. Let him make boxes, do a little potting, put in cuttings, etc.; there is lots of other work a man can do.

Are you in the habit of going on a little spree? My boss is. If so don't give the man a half hour lecture on economy, because he burns two lanterns occasionally; lanterns give poor light at best. Don't promise your man a certain wage and then cut him down 50 cents or \$1 or \$2 a week, and tell him if he ain't satisfied that there's lots of other men idle. Above all, don't talk about the man behind his back; he hears all you say about him. If the night man at G. & L.'s is giving satisfaction and does the best he can their words in the *FLORIST* were a lasting and stinging insult to him. Let them examine themselves, maybe their men have something to contend with like I had, if so, turn over a new leaf, put it for two weeks on trial and let us hear the result. See to it that your day man does his duty. Give the night man a fair chance.

Speak get thy, 'tis better far

To rule by love than cuss words.

NIGHT MAN.

Cut Flower Quotations.

ED. AM. FLORIST.—Perhaps you will say when you commence to read, that I have not been a very close observer of your columns for I want to say a few words in regard to wholesale prices of cut flowers. I, too, like your Philadelphia correspondent, do not find that your quotations are anywhere near actual prices. During the present winter we have been shipping a considerable quantity of bulbous stock and be the quality however good we never get over $\frac{3}{4}$ of your quotations. For best Roman hyacinths we get \$3, nothing higher even at Christmas. Your quotations are usually \$4 to \$6. For daffodils we get \$3 to \$4, you quote \$4 to \$6 or even \$8. On hills of the valley you generally quote \$4 to \$6, we realize \$3. Now why is this? Please don't say the stock was poor for it was

not, or the market glutted for if this be the case it has been glutted all winter. I think that if growers would speak out you would hear the same story from nearly all of them. Let us have this matter ventilated if need be, and if not let us have reliable quotations by all means. In conversation recently with some of the leading commission men in New York I found that their views in regard to prices of this stock did not in any way agree with the quotations given in horticultural journals. Are commission men dishonest or do they quote abnormally high prices for effect? The prices named above are in New York. Not being satisfied with my commercial relations with the Gothamites I tried the City of Brotherly Love but the discrepancy was just as great, for one dealer there had the audacity to return me \$2 gross for 204 first rate daffodils! The growers work hard, let them have justice. A GROWER.

Nomenclature.

S. A. F. Committee on Nomenclature.

JAMES D. RAYNOLDS, Riverside, Ill., Chairman.

Roses:

ROBERT CRAIG, 49th & Market Sts., Phila., Pa.
EDWIN LONSDALE, Chestnut Hill, Phila., Pa.
ERNEST ASMUS, West Hoboken, N. J.

Carnations:

A. F. WHITTLE, Albany, N. Y.
JOHN THORPE, Pearl River, N. Y.
WM. FALCONER, Glen Cove, N. Y.

Palms, Ferns, and like Decorative Plants:

CHAS. D. BALL, Holmesburgh, Phila., Pa.
JOHN BURTON, Chestnut Hill, Phila., Pa.
W. R. SMITH, Botanic Garden, Washington, D. C.

Chrysanthemums:

JOHN THORPE, Pearl River, N. Y.
WM. FALCONER, Glen Cove, N. Y.
J. M. KELLER, Bay Ridge, N. Y.

Bedding Plants:

G. L. GRANT, 54 La Salle St., Chicago, Ill.
ROBERT CRAIG, 49th & Market Sts., Phila., Pa.
J. M. KELLER, Bay Ridge, N. Y.
A. F. WHITTLE, Albany, N. Y.

Orchids:

DAVID ALLAN, Mt. Auburn, Mass.
BENJ. GREY, Malden, Mass.
WM. FALCONER, Glen Cove, N. Y.
J. FORSTERMAN, Newtown, N. Y.

The Committee on Nomenclature.

The second part of the resolution under which the above committee was appointed (and which may be found on page 114 of the proceedings of the fourth convention), reads as follows: "That it shall also be the duty of the said committee where questions or disputes are brought before it as to the correct names of plants, to settle and decide the same." To do this would necessitate a correct botanical description of the plant in question, by means of which the proper authorities in book form could be consulted and the question decided, it probably being with this in view that the proviso was inserted in the main part of the resolution, that one of the members of the committee "shall be a recognized botanist."

But having arrived at this stage of the proceedings we are confronted with the important question, Who are the proper authorities? Are we to consider as the correct guide in the naming of roses Canon Hole, or Ellwanger, or Thos. Neitner, or whom?

In whose judgment shall we confide for the naming of our geraniums and other bedding plants?

For orchids there are the writings of Reichenbach, Warner, Veitch and others, but to whom shall we apply for the correct naming of palms and other foliage plants? Regarding ferns and allied plants there are Moore, Baker and Williams. But it would also be essential to adopt some decided opinion regarding shrubs

and trees, coniferous and otherwise, else some of the members of our society who combine the nursery and florist businesses would frequently be at a loss.

Would it not be advisable for the various members of the society to present through the columns of the *FLORIST* the names of authors they consider as authority on any special class of plants? It would undoubtedly prove useful in pointing out valuable books of reference to some of the younger members, and from the mass of suggestions received in this manner it may be possible at the next meeting of the S. A. F. to adopt some standards of reference.

MEMBER S. A. F.

Pitch of Roof for Rose Houses.

I have only just noticed Reader's enquiry (page 257) on this subject. If Reader will refer to the plans I gave in the *FLORIST* last summer he will see there what I invariably recommend, but in case he should not have those numbers to refer to I would advise him and all others to make the pitch of their rose houses $7\frac{1}{2}$ to 8 inches to the foot. Some growers, particularly those in southern cities, claim this is too much, but those who have built new houses with as much pitch as the above in some of our southern cities claim they are far better structures for the purpose than those having flatter roofs. Having tried various grades for this purpose from five inches upwards I am convinced that at least for all the northern and western states the pitch should not be less than $7\frac{1}{2}$ inches to the foot; and for all places north of latitude 41° I would advise $7\frac{1}{2}$ to 8 inches. I think if florists generally were once to try a house so built they would be convinced of its adaptability.

In regard to Reader's other question about the thickness of boards acting as a conductor of heat, would say that as far as I am able to decide I can not find it of material difference. Having tried various thicknesses from $\frac{1}{2}$ of an inch up to 2 inches I have never found any advantage or disadvantage arising from either so far as the heat is concerned; but where it is practicable to put the bearers near enough together to support the thin boards, I would prefer them to the thick ones, as they last as long or longer than the thick ones and cost less, which gives their use a double advantage. Where to be had I would always advise giving them a good coat of crude petroleum when dry, and after allowing it to soak well into the wood for one or two days give the whole inside surface a good coat of hot lime wash; and do the same every year when emptying; this serves the double purpose of destroying any insect larvae there might be, and as a preservative of the wood.

JOHN N. MAY.

The Wootton.

With us the "Wootton" has not come up to what was claimed for it. We planted 100 plants in September, and although at present in the finest health have not been able to procure blooms like those sent us by the introducer. Have cut a few very nice blooms, but the majority are the size of Bennets. But to the florist requiring a red rose, we consider it very valuable, exceedingly free, a most vigorous grower, bearing fine foliage. With us no sign of black spot.

Kansas City, Mo. SAMUEL MURRAY.

PRINT your spring trade list in the next issue of the *AMERICAN FLORIST* and mail copy for same as early as possible.

Leaves of Advice From a Limb of the Law.

(For Young Florists.)
XII.

Confound that cactus plant! What do you stand such prickly things behind your chairs for? I really believe my back has as many holes in it as a sheet of postage stamps. I feel as if Nessus and I had exchanged shirts.

You got "stuck" too did you last week? Good! Ha ha ha ha! Sat down on one of these infernal prickly machines I suppose. Doesn't feel very comfortable, does it? Worse than that, hey?

Cost you twenty-five dollars, did it? He was a shrewd fellow that, and having a bundle of bills made out on Bumble & Boggs' bill heads, in the same hand as their former statements—of course it was forged, you simply took notice of the fact that the fellow was perfectly posted in reference to the business of the house and paid the bill. In other words, you thought you had a right to presume that the man was their collector.

Yes, it is a dead loss. But let it serve to make you more careful in the future. Beware of presumptions in business matters.

There it goes again. Duce take that infernal prickly machine, this time the back of my hand received a dose. If you will only be one half as watchful as that cactus plant you will get on well enough.

Be always on the alert. Keep your wits sticking out at every pore so to speak. True, the law does permit a man to risk a presumption some times. But you had no legal right to presume that that fellow was Bumble & Boggs' collector. Had you known of your own knowledge that he was in the employment of that firm then you would have been legally justified in presuming him their collector until notified by them to the contrary.

The law presumes many things. It presumes that a man means what he says—for the law never jokes, and it presumes that a man intends to do what he does do.

But the mere fact that a blind man had written his name to a contract would not be sufficient to raise a legal presumption that he knew what he was doing.

So with an illiterate man. The law would call for additional facts to prove that such a man had not been the victim of fraud.

The law will, however, presume many things. Here are a few of them: It will presume that a promissory note was given or indorsed for a good consideration; that the person holding it is the lawful owner; that persons who take joint risks are partners; that a man who suppresses the truth utters a falsehood; that an agent is lawfully empowered to do all necessary acts in connection with the business entrusted to his care; that a person who merely signs a paper with his initials intends to execute fully; that when a man brings a suit he brings it for everything due at that date; that a person who makes trivial allegations has a weak cause; that persons owning a thing jointly are interested share and share alike; that a press copy of a letter is as good as the original; that a receipted bill has been paid; that a business man knows the law controlling his business; that if the filling in of a blank form conflicts with the printed matter, the written words are the real sentiments of the contracting party; that a receipt of money paid by installment is proof that all prior installments have been paid; that a person committing a fraud intended so to do; that any note, due bill, bond, etc. in

the possession of the person who made it has been fully paid; that a written contract embodies all the views of the parties making it; that a person who alters an agreement has a fraudulent design; that a child under seven can not knowingly commit a wrong; that a minor never ratified a contract after becoming of age, unless he did so in writing and in express terms; that when a man shows a sample he intends to deliver goods of that quality; that a lunatic was not in a lucid interval when he signed a contract; that that woman is a man's wife whom he declares so to be; that where man and wife are lost at sea the woman died first; that a man making a declaration on his death bed tells the truth.

There, those are a few of what the lawyers call "legal presumptions." But mind, they may always be overthrown by proper evidence. The law is always



MYRON A. HUNT.

ready to declare itself mistaken. This is its greatest claim to our respect.

In the olden times a king could do no wrong. But those days are gone forever.

You will find that the presumptions which the law allows are absolutely necessary for the welfare of society. If your possession of a chattel were not presumptive evidence of ownership all business would come to a standstill. And the law is a little hard-headed when it has made a presumption. It requires strong evidence to convince that the contrary is true.

The law would feel outraged were I to lay hands upon you and cry out that the watch you carried belonged to me. It would require strong evidence to overthrow the presumption that you were the legal owner of the watch and yet I might succeed in doing it. The law admits that truth may easily be stranger than fiction.

UNCLE BLACKSTONE.

Myron A. Hunt.

On this page appears a portrait of Mr. Myron A. Hunt, treasurer of the Society of American Florists, which office he has filled since the organization of the society. He was one of those who were instrumental in bringing the society into existence, and has devoted much time to the advancement of its interests, particularly in its early life when earnest work was doubly necessary.

Mr. Hunt was until recently engaged in the catalogue mail plant trade at Terre Haute, Ind., where he has an extensive range of greenhouses, but is now devoting his attention entirely to the production of cut flowers, mainly roses, for the Chicago market.

Leaky Joints.

In answer to W. H. Humfield in the *FLORIST* of February 15, I will give our method of putting in pipes. We have used most everything to caulk with and were always troubled with leaky joints until we used cement. In the first place we build brick piers for the pipe to rest on, not having them connected with the house or benches in any way; have the top of the pier level and smooth, then we put on a piece of inch gas pipe for the pipe to rest on, the pipe acting as a roller to relieve the brickwork of any strain from the contraction and expansion of the hot water pipes.

To caulk the joints we take Portland cement and coarse sharp sand (sifted through a common meal sieve) in equal parts; mix dry, then take enough for one joint and add about a tablespoonful of water or just enough to make it damp, not wet—there is more danger of getting it too wet than too dry; fill the joint half full and ram it down firmly with a caulking iron, using a hammer, not striking too hard; if it is too wet it will not pack but form mud; fill the joint full, well packed down, then smooth it up with a putty knife, using a little more water in the cement so it will work under the knife.

We have a house 75 feet long with 10 runs of pipe which have been in use two winters and have never leaked a drop. I have stopped leaky joints by driving in the old caulking until tight, then filling up with cement. When caulking in the summer we keep the joint covered with a wet cloth until filled with water as the cement sets harder when damp.

Lansing, Mich.

R. MANN.

Catalogues Received.

J. A. DeVeer, New York, trade list bulbs, seeds and plants; Hillebrand & Bredermeier, Paltanza, Italy, seeds and plants; Souper & Notting, Luxembourg, Europe, roses; V. Lemoine, Nancy, France, plant novelties; United States Nurseries, Short Hills, N. J., chrysanthemums and single dahlias; Alfred Bridgeman, New York, seeds; Z. DeForest Ely & Co., Philadelphia, seeds and plants; Nathan Smith & Son, Adrian, Mich., chrysanthemums; Geo. Hancock, Grand Haven, Mich., carnations; Jos. Breck & Sons, Boston, Mass., seeds; W. W. Rawson & Co., Boston, Mass., seeds; Mrs. T. B. Shepherd, Ventura, Cal., plants and seeds; John Gardiner & Co., Philadelphia, seeds; Currie Bros., Milwaukee, Wis., seeds and plants; A. W. Smith, Americas, Ga., seeds. John A. Salzer, La Crosse, Wis., seeds; B. A. Elliott Co., Pittsburg, Pa., plants, trees and shrubs; Michel Plant and Seed Co., St. Louis, Mo., plants, bulbs and seeds; Ellwanger & Barry, Rochester, N. Y., nursery stock; John R. & A. Murdoch, Pittsburg, Pa., seeds, plants and nursery stock; H. Cammell & Sons, Swanley, Kent, England, plants; same, seeds; F. E. McAllister, New York, seeds; Joseph Bancroft, Cedar Falls, Iowa, plants and seeds; A. C. Nellis & Co., New York, seeds; Harman & Son, South Bend, Ind., seeds; Plant Seed Co., St. Louis, seeds; John N. May, Summit, N. J., roses.

If you know of any plant which is traveling under two names report the same at once to the Committee on Nomenclature. The full committee with address of each member may be found in another column.

OUR NEW DIRECTORY of the florists, nurserymen and seedsmen of the United States and Canada is now ready. Price \$2.

News Notes.

CINCINNATI.—The next meeting of the Cincinnati Florists' Club will be held March 8.

RICHMOND, VA.—J. Harry Harvey is about to begin the erection of about 9,000 feet more glass.

ELMIRA, N. Y.—Grove P. Rawson is building three additional houses for forcing roses, carnations and violets.

ROCHESTER, N. Y.—Messrs. Ellwanger & Barry celebrate this year the fiftieth anniversary of the establishment of their nursery.

CHICAGO.—The Florist Club's annual dinner occurred at Kinsley's February 26. Mr. John Lane will spend the next three months in California.

QUINCY, ILL.—The florist at the Illinois Soldiers' and Sailors' Home, Mr. Edward Pratt, died on January 26th after a short illness of typhoid pneumonia.

NEW YORK.—Fred Gordon, the well known florist, is reported in the *New York Star* of February 13 to be insane, and confined in Bellevue Hospital.

WESTFIELD, N. Y.—On the morning of February 13 the greenhouses belonging to E. S. Bartholomew were destroyed by fire. The loss on plants was about \$1,500.

MERIDEN, CONN.—A Christmas order received by Washburn Bros. was: "A box of choice cut flowers, chiefly roses, about 10 cents worth." The order was filled by delivering one Bon Silene bud in a large box.

BROOKLYN, N. Y.—Florist Wm. Koster, 162 Even street, was somewhat startled recently by having a runaway horse break through his plate glass window, smashing it into fragments. The glass was valued at \$80.

PUEBLO, COLO.—Victor Johnson, formerly in the employ of M. D. Thatchers, of this city as gardener, is building three greenhouses—16x60, 11x60 and 11x36 respectively, to be used mainly in growing cut flowers for local trade.

MINEOLA, O.—Fire destroyed the boiler house and part of the greenhouses belonging to J. B. Roach, on January 22, causing a loss of about \$600. On February 6 Mr. Roach lost his wife at the age of 30, from consumption, after an illness of five years, at Canton O.

SIMSBURY, CONN.—Charles A. McLean, a florist here and a member of the Society of American Florists, died June 14 last, aged 38. As no mention has yet been made in the *FLORIST* I take the liberty to send this note. Though perhaps not very well known to the trade he was a man who was loved and respected by all who knew him.

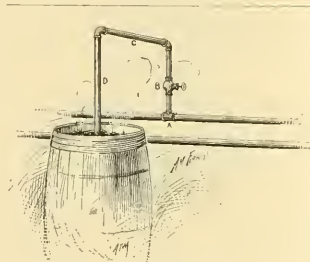
ATLANTA, GA.—A chrysanthemum show will be given here Oct. 28 to Nov. 1 next by the Piedmont Exposition Company, who will erect a handsome floral hall upon the exposition grounds for the purpose. Premiums to the amount of \$500 are offered in eleven classes. Copies of the premium list can be obtained from Chas. Arnold, secretary, Atlanta, Ga.

ST. LOUIS.—A recent bill in the city council giving a park commissioner authority to give away young trees and shrubs from the Forest Park nursery has stirred the nurserymen of the city up considerably. They have presented a long petition to the council in which they ask

if the city can first tax them on their business and then enter into competition with them.

DAYTON, O.—Trade has been good, white flowers scarce. All bulbous bloom will be scarce for Easter owing to the warm weather. Tulips have done poorly. Silver spray will be the only white carnation grown here next year. J. B. Heiss is building three houses 100x16 for cut flowers. H. H. Ritter will build a large rose house. The Dayton Floral Co. is building two houses 65x18 for carnations and will heat by steam next winter.

LOUISVILLE.—Trade was very good for the six weeks preceding Ash Wednesday. Flowers have been scarce since January 1, and have been getting roses, carnations and other flowers from Cincinnati Chicago and other cities. Roses and carnations have been a failure around Louisville this winter, the quality of what blooms we did get being very inferior. There has been a lively demand owing to the great number of wedding decorations.



KILLING GREENFLY.

MONTREAL.—At a meeting of the Montreal Florists and Gardener's Club held on the 28th of January the following resolutions were unanimously adopted. Resolved that by the death of Mr. Peter Henderson of New York, floriculture has lost one of its most shining lights, and this club one of its most generous and valued friends. Resolved that copies of these resolutions be forwarded to the family of the deceased gentleman, and to the horticultural press.

PROVIDENCE, R. I.—At the adjourned meeting of the Rhode Island Hort. society held February 12 a large number was present. It was decided to give a chrysanthemum exhibition in November and committees were appointed for the ensuing year. Ten new members were added to the roll. This society was never in a more flourishing condition than at present. New members are being added to the roll at every meeting, and the finances of the society are all that could be desired.

NEW ORLEANS.—To encourage the taste and love for flowers and plants among children, a lady amateur and an honorary member of the New Orleans Horticultural Society, offers the following purses for the exhibition of seedlings and plants grown by children only, at the fourth exhibition of the society, in April. First—For the best growing seedlings, \$5. Second—For the best six growing plants, \$15. Third—For one dozen good growing plants, \$25. The regular premium list has been issued and may be had on application to Secretary Chas. Wise, corner Third and Prytania streets.

PHILADELPHIA.—Active steps are being taken at the University of Pennsylvania to establish a laboratory of plant physiology and anatomy, which it is said will be equal to any in the world. At the monthly meeting of the Penna. Hort. Society February 19, the exhibit of cut roses was particularly fine. A popular vote was taken on the merits of Mrs. John Laing and Mme. Gabriel Luizet, and of La France and Duchess of Albany, which resulted as follows: Luizet 59 and Laing 32; La France 33 and Duchess of Albany 26. There were 69 proposals for membership at this meeting, and the old Penna. Hort. Society may be considered to be on a decided boom.

BUFFALO.—At a meeting of the Buffalo Florists' Club held February 14 it was decided to abandon the project of a spring exhibition, but it was the unanimous sentiment of all present that a big chrysanthemum show should be held next fall, and an effort will be made to excel all previous efforts in this line. Fred Katoll, Jr., read a carefully prepared and interesting paper on primroses. At the meeting held February 28, candidates were nominated for the annual election which will take place March 14, and a debate on the question whether the florists' business of to-day should be classed with the professions in science and art, instead of being considered merely a commercial trade.

PITTSBURGH.—The floral decorations at the banquet tendered to President Harrison during his recent visit to this city attracted much attention and were warmly commended by the local press. In the center of the table was a cabin about 2½ feet high by 3 feet long, formed of natural bark, over which was thrown with care, less grace delicate orchids, and festoons of roses hung down the eaves and hid the chimney. Roses and orchids grew in profusion at the base, and peeped in the doorway and windows. The cabin was a fac-simile of the one in which little Benjamin Harrison opened the same pair of eyes with which he viewed these decorations. At either end of the table were immense bowls of roses, one of La France and the other of American beauties. Over the table cloth were trailed in profusion maiden hair ferns and pink orchids. A. M. and J. B. Murdoch were the florists who arranged the decorations.

SAN FRANCISCO, FEB. 7.—We have had about seven weeks of continuous rain, which has materially affected the crop of flowers which, however, have been much better than might be expected. We have had now about a week of clear weather and the markets are full of first class flowers, such as Mermetts, Perles, Gontiers, Brides, Niphetos and American Beauties; Trumpet narcissus, Harrisii lilies, carnations, violets, hyacinths, freesias, etc. Smilax and ferns are good and in abundance. The chrysanthemum season has held on wonderfully, there still being in the market some very good flowers. Prices while not extravagant are holding up well, being in general much better than at this season last year. The market is entirely bare of orchids. Azaleas are coming in in very good shape. This is the first year that the San Francisco florists have succeeded in growing Mermet roses, and it can be truthfully said that the flowers produced are on an average nearly as fine as New York's best. The people are beginning to pay prices for decorations. A number of them having been recently made at figures from \$500 to \$1,000 each. E. E. S.

CHRYSANTHEMUMS.

Waterer's Novelties for 1890.

President Harrison, Mrs. Charles Dissel, Edwin Lonsdale, Twilight, Mrs. Frank Clinton, Edward, Model, White Cap, Gipsy, Miss Minnie Wannamaker. Also

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 Arch Duke Charles, Marie Guillot,
 Marie van Houtte, La Princess Vera,
 Dr. Grill, Mme. Welch,
 Luciole, Mme. Lamhard,
 Bosanquet, Musk Cluster,
 Adam Tea, Lawrencia,
 Duchess of Edinburg, Homer,
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THE CLIMBING PERLE DES JARDINS.

TO OUR PATRONS, AND THE TRADE GENERALLY:—We are convinced that this Rose
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 growth, large flowers, beautiful in color and form—a true Tea—must commend it to all.

Strong plants Ready April 1st, \$1.00 each; \$10.00 per dozen.

All the Old, New and Forcing varieties on hand, at lowest prices.

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We have a fine stock of the above in 2½-inch pots, at \$5.00 per 100. We can also
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	Per 100		Per 100
Perles	\$5.00	Mermets	\$5.00
Papa Contier	4.00	Niphotos	5.00
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ALSO ALL THE BEST BEDDING VARIETIES.

I AM now prepared to fill orders for the same in Large or Small quantities, **TO THE TRADE,**
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Discounts, 3 months, 5 per cent; 6 months, 10 per cent; 12 months, 20 per cent.
No reduction made for large space.

The Advertising Department of the AMERICAN FLORIST is for Florists, Seedsmen, and dealers in wares pertaining to those lines ONLY. Please to remember it.

Orders for less than one-half inch space not accepted.

For Advertisements for March 15 issue must REACH US by noon, March 10. Address

THE AMERICAN FLORIST CO., Chicago.

THE HENRY SHAW SCHOOL.

The first annual report of the Director of the Missouri Botanical Garden has been received. In it is outlined the policy which will be pursued in executing the work laid out and financially provided for in the will of the late Henry Shaw.

One of the most practical and useful of the steps indicated in this policy, and of direct interest to the trade, is the provision of scholarships for garden pupils. An announcement concerning such scholarships was issued last December, from which we give extracts.

"In accordance with the intention of its honored founder, the trustees of the garden propose to provide adequate theoretical and practical instruction for young men desirous of becoming gardeners. It is not intended at present that many persons shall be trained at the same time, nor that the instruction so planned shall duplicate the excellent courses in agriculture now offered by the numerous State Colleges of the country, but that it shall be quite distinct and limited to what is thought to be necessary for training practical gardeners.

"To this end, the following resolution was adopted by the trustees, at a meeting held on the 19th of November, 1889:

"Resolved, That there be established the number of six scholarships for garden pupils of the Missouri Botanical Garden, to be available on and after April 1, 1890, such scholarships to be awarded by the director of the garden on the results of competitive examination, except as hereinafter provided, to young men between the ages of 14 and 20 years, of good character and possessing at least a good elementary English education; each scholarship to grant such privileges and be subject to such conditions as are provided below or may subsequently be provided by the trustees of the garden.

"Until otherwise ordered, two such scholarships shall be reserved for candidates to be named by the State Horticultural Society of Missouri, and the Florists' Club of St. Louis respectively; provided that such candidates shall be given scholarships only after passing satisfactory preliminary examinations, and shall be subject after appointment to all tests and regulations prescribed for other candidates and pupils, and that if the names of such candidates are not presented by the societies designated, within sixty days after such action is requested by the director, the vacancies may be filled by him on competitive examination, as in other cases.

"Each scholarship so conferred may be held by the recipient for a period not exceeding six years subject to conditions."

The conditions are very explicitly given in the report which can undoubtedly be obtained by any one interested on application to William Trelease, Director of

the Missouri Botanical Garden, St. Louis, Mo.

The course of study outlined approaches very closely to that which we would select for a young gardener, though more time is to be devoted to theoretical instruction than would probably be acceptable to the young man commercially inclined. The Director says: "The effort will be made to give the best theoretical instruction possible in the various subjects prescribed; but it is not intended to make botanists or other scientific specialists of garden pupils, but, on the contrary, practical gardeners."

Certainly this is the nearest approach to the "training school" that the profession needs and we believe that the young men who are fortunate enough to receive the benefit of Mr. Shaw's munificence will exert an influence for good in the profession. We should have stated before that the pupils are to receive wages, for the first year, \$200; for the second year, \$250; and for each year after the second, \$300; together with plain but comfortable lodgings convenient to the garden. So that the absence of pecuniary means need not deter any young man from obtaining such a training.

COST OF PRODUCTION.

Mr. Chitty gives us in this issue some very interesting and valuable data upon the cost of producing cut blooms of carnations. There is a discouraging dearth of such data and the value of every addition is very considerable. We trust that every one who has kept a record of the number of blooms cut from a given number of plants occupying a given space, during a given length of time, will not fail to send us a condensed statement of the same that it may be added to the general fund of information. We refer not only to carnations but to any other stock. If we can establish some stated number of blooms as a fair average crop, much will have been done toward ascertaining the average cost of production. This average would not be an inflexible guide for every grower, owing to varying conditions, but it would show him beyond doubt what degree of success he was attaining, and this would be a decided help and a long stride in the right direction. The record of one house of carnations given by Mr. Chitty shows that he cut an average of a little over 33 long-stemmed, marketable blooms from each plant during the year. He gives the average price obtained for the flowers as 2 cents each, hence the product of each plant was 66 cents.

Even if we are unable to ascertain the exact cost of producing any cut flower, we will have accomplished a very great deal by establishing the comparative productiveness of different varieties. In roses, if we can secure an average of a number of houses of the same variety, where space occupied is given, and similar ones of other varieties, we will have obtained a comparison which would be of great value in determining the comparative commercial value of these roses, one with the other. And from this we can make many valuable deductions. Can any one now say whether he is deriving as much profit from his *Perles* at 6 cents as he is from his *Bon Silenes* at 4 cents? Is the comparative cost of production truly expressed by these prices?

THE WOOTTON—A box containing about fifty blooms of the rose *Souvenir de Wootton* was received from Messrs C. Strauss & Co., Washington D. C., Febru-

ary 25. All were on fine long stems with handsome foliage and none of the buds were less than 1½ inches long. They arrived in excellent condition, and were beyond criticism as a first class rose of its color, with the exception of a slight purple tinge on the edges of the petals of six or eight buds. The majority had however retained their color well. With the exception noted we can find no word of criticism for the roses sent. This additional evidence and the fact that a majority of our best rose growers find so much of value in the rose, should we believe, make florists slow to pass hasty judgment upon it. As shown by the reports previously printed the rose has defects, but the majority of those who have given it a trial—comprising the most expert growers in the country—agree that it has too many good qualities to merit condemnation without first receiving a most thorough trial.

OUR QUOTATIONS on cut flowers are again the subject of criticism. All we have to say is that the prices we quote are furnished to us by the leading commission dealers, who certainly ought to know what stock is sold at. We would ask our correspondent whether he has received the quotations which the commission dealers send to their customers, and whether they have not been very close to the prices quoted by us?

THE CHAIRMAN of the Committee on Nomenclature has received numerous favorable replies to the letter sent to the Experiment Stations, some showing great interest in the proposed work. The Experiment Stations can be safely relied upon to give much valuable assistance to the committee.

THE FUNGUS OF THE CUTTING BENCH—Mr. Geo. E. Fancourt, Wilkesbarre, Pa., writes that he has found a very efficient remedy for this troublesome pest in Hammond's "Grape dust." He states that he has given it extensive trial and that it is the only thing he ever tried that was effective.

"STEAM HEATING and crude oil as fuel" is the title of a 20-page pamphlet received from the author, Mr. J. B. Moore, Reading, Pa. In it he presents the results of his experiments in heating. Any one contemplating a change to crude oil for fuel can find much of interest in it.

PLACE ALL YOUR orders this spring with those who advertise in the AMERICAN FLORIST. Our advertisers are all reliable men, and if any prove otherwise we will take it upon ourselves to secure justice to the customer. We refuse advertisements from any we deem unreliable.

SHIPPERS should not forget that giving careless packing to good plants is like putting new wine into old bottles. It is the condition in which the plants reach their destination, and not that in which they leave your establishment, that counts.

THE ORCHID SHOW given by Messrs. Siebrecht & Wadley at the Eden Musee, New York, has drawn forth columns of admiring comments from the New York daily press. We shall have some notes upon the same later.

C. F.—We should not consider it right for the foreman to withhold a reference under the circumstances providing there was no other reason than the one stated by you.

THE "NIGHT MAN" has his little say in another column.

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We keep a large supply of Fancies and Carna-
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Wholesale Markets.

Cut Flowers.	
BOSTON, Feb. 24.	
Roses, Teas.....	\$4.00 @ \$5.00
" Perle, Sunset.....	5.00
" Gontiers, Niphetos.....	6.00 @ 8.00
" Mermets, Bride, Wootton.....	12.00 @ 15.00
" Jacqs, Hybrids.....	25.00 @ 40.00
Carnations.....	1.50 @ 1.00
Valley, Narcissus.....	4.00
Dafoedils, Tulips.....	4.00 @ 5.00
Violets.....	.75 @ 1.00
Smilax.....	12.50
Adiantums.....	1.50
Callas.....	8.00 @ 10.00
Harrisii.....	15.00
Mignonette.....	2.00
Heath, per bunch.....	1.00

PHILADELPHIA, Feb. 24.	
Roses, Am. Beauty.....	\$15.00 @ 30.00
Hybrids.....	24.00
" La France.....	10.00 @ 15.00
" Mermets, Brides.....	8.00 @ 10.00
" Cousins, Watteville.....	8.00 @ 10.00
" Gontiers.....	5.00
" Bennetts.....	8.00 @ 10.00
" Perles, Niphetos.....	4.00 @ 5.00
Carnations, long.....	1.50 @ 2.00
Carnations, short.....	1.00 @ 1.50
Valley.....	1.00
Violets.....	.50 @ .75
Dafoedils.....	4.00 @ 5.00
Cousins, Watteville.....	3.00 @ 4.00
Tulips.....	4.00 @ 5.00
Smilax.....	15.00 @ 20.00

NEW YORK, Feb. 24.	
Roses, Bon Silene.....	\$3.00 @ \$4.00
" Perles, Niphetos, Sunsets.....	4.00 @ 5.00
" Gontiers.....	4.00
" Mermets, Brides.....	3.00
" Hostes, Cousins, Watteville.....	10.00
" Bennetts.....	6.00
" La France, Albany.....	10.00 @ 12.00
" Beauties.....	25.00 @ 50.00
" Jacqs.....	15.00 @ 25.00
" Hybrids.....	25.00 @ 60.00
Smilax.....	20.00 @ 35.00
Carnations, long.....	2.00 @ 2.50
Mignonette.....	3.00 @ 4.00
Roman hyacinths, Valley.....	3.00 @ 4.00
Tulips.....	4.00 @ 5.00
Harrisii.....	15.00 @ 20.00
Violets.....	1.00 @ 1.25
Adiantums.....	1.50

CHICAGO, Feb. 25.	
Roses, Perle, Niphetos.....	\$4.00 @ \$6.00
" Gontiers.....	4.00 @ 7.00
" Bon Silene.....	3.00 @ 4.00
" Mermets, La France.....	6.00 @ 8.00
" Brides.....	8.00 @ 10.00
" Am. Beauties.....	15.00 @ 40.00
" Jacqs.....	12.50 @ 20.00
Carnations, short.....	2.00 @ 3.00
Carnations, long.....	12.50 @ 15.00
Callas, Harrisii lilies.....	12.50 @ 15.00
Smilax.....	12.50
Violets.....	.75 @ 1.25
Valley, Romans.....	4.00 @ 5.00
Tulips.....	4.00 @ 5.00
Adiantums.....	1.10 @ 1.25
Narcissus, dafoedils.....	1.00
Freesia.....	1.00
Asparagus tenuissimus.....	4.00

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ROSE BUOS IN ANY QUANTITY SHIPPED
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 our business. We therefore claim that we are
 better prepared to attend to the wants of **FLOWER**
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 Code when ordering by telegraph. For prices, etc.,
 Address,

J. L. DILLON, BLOOMSBURG, PA.

Catalogue Illustrations.

Speaking of illustrations, give R. J. Lombard credit for being the first to come forward and claim the benefit of official testimony as to faithfulness.

He laid on the table before the executive committee in Boston a liberal "unch of his carnation "Mrs. Fisher," together with the photographic process plate for his advertising circular. While the flowers do not average quite so large as those shown in the plate, it is yet a true and honest portrait. It is not claimed that a cut should show only average specimens. A man is certainly entitled to select his very best for portraiture. If this limit is adhered to there will be no complaint.

"Mrs. Fisher" is certainly a magnificent white carnation, there is hardly a fault to be found with it except perhaps that it shows its parentage (DeGraw) in having a stem somewhat delicate for carrying so large a flower. J. D. R.

SEEDS.

My Annual PRICED CATALOGUE is now ready and mailed free to all applicants. It contains all the leading and most popular sorts of

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Besides all the desirable novelties of last season, and nearly everything else in my line of business.

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Best Variety Grown.

Pound \$10. Ounce 75 cts. Packet 25 cts.

Celery plants ready May 1st, at \$3 per 1,000. "Kalamazoo Celery Culture" Complete, 50 cts. Outside plants ready June 28th. Write for prices.

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We must have room, and offer 2½-in. pot plants, at 50c. per doz.; \$3 per 100. 3 and 3½-inch pot plants, \$1 per doz.; \$8 per 100.

SEED—(crop 1889), per pkt., 1000 seeds, 75 cts.

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HYDRANGEA OTAKSA, 3-in. pots, \$5 per 100; \$40 per 1000.

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H. W. Longfellow, 2½-inch pots, 4 00

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RHODODENDRONS—Of the best named sorts, and
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G. J. & Son have also to offer a

NEW CLEMATIS

MRS. BARON VEAILLARD,

a handsome variety of the Jackmanii type.
It is a vigorous grower, bearing a profu-
sion of distinct light lilac-rose flowers, of
medium size, from July to October.

PRICE, 30¢ PER DOZEN.

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These Ferns are of a beautiful dark green color,
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Special attention paid to supplying the
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500 BBS. SPAGNUM MOSS,
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Write for terms on large lots.

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Geranium, in 20 choice varieties, 2-in.	\$3.00
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Smilax, strong, 2-in.	1.50
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Deutzia Grenata, 2-inch, dormant.	2.50
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Chrysanthemums, fine varieties, 2-in.	3.00
Heliotrope, 4 best varieties, 2-in.	3.00

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I am the largest grower of Magnolia Grandiflora
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inches to five feet high, including all the inter-
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Rooted Alternanthera & Coleus Cuttings

Alternanthera Versicolor and aurea nana compacta,
\$1.00 per 100
Coleus Verschaffeltii & Golden Beider, \$1.25 per 100.

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PROGRESS RASPBERRY.

The earliest of all; jet black, beautiful, delicious. Yields
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Most profitable for market. Doz., \$1.00; 100,

\$5.00. Early Prolific, earliest and best red

red raspberry. Doz., \$2.50; 100, \$15.00.

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Large, most prolific, luscious, fiery scarlet.

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several other new strawberries; Early King and Eric

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The "PLANET JR." No. 2 GARDEN DRILL, is beyond question the best; sows the most difficult

seeds; opens, covers, rolls down and marks the next row with the greatest regularity.

The COMBINED DRILL and HOE, &c. The greatest favorite ever produced. Perfection as a Seed

Drill, or as a Plow, Hoe, Garden Rake, Cultivator or Marker. Saves labor and seed and soon saves cost.

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DOUBLE WHEEL HOE PLAIN. Same as last, but has one pair of leaf guards.

The SINGLE WHEEL HOE is a treasure. Beats the double in some crops; is lighter. Has a Large Plow,

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'White Asters, Giant Market and Fancy

Pansies, Perpetual White Stocks,

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Also a limited stock of SCARLET ASTERS (La

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(Our White Aster, of the Multiflora class, is an

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To give the FLORIST your fullest support, confine your orders as far as possible to those who advertise in its columns.

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MY CATALOGUE OF

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Mention American Florist.

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Coleus, Geranium and Fuchsia, plants or rooted cuttings. No reasonable offer refused.

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TREES. SPECIAL IMPORTATIONS AND NOVELTIES SELECTED IN EUROPE THIS SEASON. Splendid hardy Rhododendrons and Azaleas, full of bud; Japanese Maples, specimen Evergreens, and fine Trees; choice Shrubs, Roses, Vines and Fruits. Reliable stock in quantity at low prices. Also Native Shrubs and Herbaceous Plants. Extra English grown Grape Vines for Vineries. Catalogues on application.

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Complete List of all the New

CHRYSTHEMUMS,

As well as the 400 varieties we carry constitute the largest and best collection in this country. NEW DAHLIAS, CANNAS, BULBS, ETC.,

MAILED ABOUT JAN. 15.

NEW PANSIES FOR EXHIBITION PURPOSES. NEW ASTER "DWARF QUEEN," FINEST FOR FLORISTS' USE.

Fresh COBEA, SALVIA, PYRETHRUM, CENTAUREA, SMILAX, PETUNIA, Etc.

V. H. HALLOCK & SON,
QUEENS, N. Y.

IT WILL pay you to look over our new catalogue. There are things in it you want. We handle all kinds of Seeds and Bulbs used by florists. Competent judges claim our choice strains superior to all others on the market. Have you tried them? If not, we are willing to convince you. Give us a chance. Catalogues for the asking.

A few sample items, to give you an idea.
Prices to suit the times.



TRADE MARK, REG'D.

	LB.	OZ.
Ampelopsis Veitchii (True Boston Ivy), . . .	\$ 5.00	.45
Balsam Double White Covent-Garden Strain, . . .	12.00	1.00
Candytuft Dobbies Giant White Spiral, . . .	12.00	1.00
Cobea Scandens, . . .	12.00	1.00
Cosmos Hybridus Grandiflorus, . . .	16.00	1.25
Coreopsis Lanceolata, . . .	20.00	1.50
Primula Obconica, \$4.00 per 1000 seeds.		

Address all orders and correspondence to 21 N. Thirteenth Street,

JOHN GARDINER & Co., Seed Growers, Importers and Dealers, Philadelphia.

J. M. THORBURN & CO.,
15 John Street, NEW YORK.

FLORISTS should order at once for
SUMMER AND AUTUMN DELIVERY:

LILIUM HARRISII, ROMAN HYACINTHS,
LILY OF THE VALLEY PIPS, &C.

Prices on application.

GESNERIACIOUS PLANTS.

ACHIMENES, DOLICHODENIA, EUCODONIA, GESNERIA, GLOXINIAS, NÆGELIA, PLECTOPOMA, TYDÆA, ETC.

Descriptive price list, which also contains many novelties not found in other lists. NEW ACAPANTHUS, DAHLIAS, CANNAS, PÆONIES, PLATYCODON, SPIRÆA, ETC.

F. J. MEECH & SON, Charlevoix, Mich.

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GRAPES

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PRICE LIST ON APPLICATION.

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PIKE CO. NURSERIES, LOUISIANA, MO.

The Spider Lily.

On the nomenclature question, how is it that the catalogues do not agree on the botanical name of the "Spider Lily?" Some have it *Pancratium Caribbeum*—in fact most of them, and some *Pancratium calathinum*. Are both right? Chatham, N. Y. R. E. STUMPHLET.

[As was shown in the FLORIST recently the name Spider Lily has been indiscriminately applied to a number of the *pancratiums*.]

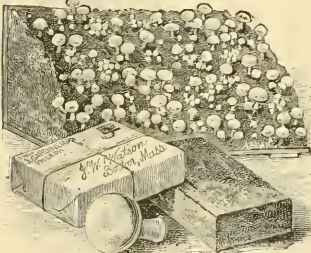
Musa Ensete.

Noticing recently some notes about *Musa ensete*, will say that I have one now showing fruit stalks. It is about 3 years old and about 30 feet high, measuring 8 feet and 6 inches in circumference at the base and I have cut some leaves 17 feet long by 3½ feet wide. G. M.

Minneapolis.

MUSHROOM SPAWN.

Best Imported English Milltrack.



Gardiner's Genuine English Milltrack Mushroom Spawn.

John Gardiner & Co. make a specialty of genuine English Milltrack Spawn. Why waste your money on doubtful quality, when you can buy the genuine English Milltrack at a reasonable price?

Can be thoroughly relied on to produce a fine crop of the best Mushrooms. Specially prepared for our trade by one of the most celebrated growers in Worcestershire.

Four importations a season—always fresh and unsurpassed in quality. The price commends itself.

By mail, post-paid, 22 cents per pound; five pounds for \$1.00. By express, at customers' expense; ten pounds for \$1.20; fifty pounds for \$5.00. Write for special prices on large lots.

FRENCH SPAWN.

In 2-lb. boxes, by express, 80 cents; ten boxes \$7.00, twenty-five boxes \$15.00, fifty boxes \$27.50.

NOTE.—For culture of French Mushroom, see pamphlet "Mushroom Culture," by Vilmorin, sent free on application with every order for spawn.

For culture of "English Milltrack" Spawn, see our pamphlet "Mushrooms for the Million," free for stamp with all orders when requested.

Address all orders and communications to
JOHN GARDINER & CO., 21 North 13th St., PHILA. PA.

Mention American Florist.

A Yellow Ageratum.

A seedling of last year, of strong growth and bright canary yellow color.

POT PLANTS, \$1.00 EACH.

Emil Glauber,
MONTCLAIR, COLORADO.

3,000 COLEUS.

in 3-inch pots for Stock in March, \$4 per 100.

ELGIN ROSE CO., Elgin, Ill.

L. A. CASPER,

Roses for Florists and Dealers in all sizes. Also a General Stock of Greenhouse Plants and Cut Flowers. Roses in 2-inch pots, \$1.00 per 100; \$3.50 per 1000, 2½-inch pots, \$6.00 per 100. 3-inch pots, \$8.00 per 100. 4-inch pots, \$12.00 per 100.

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Niphotos,
Bride,

Bon Sileue,
La France,

Catherine Mermet,
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Papa Contier,
Isabella Sprunt,

Etoile de Lyon,
Duchess de Brabant,

Mme. Welch,
Mme. Lombard,

Louis Philippe,
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American Beauty,
Wm. Francis Bennett,

Including eighty-four other varieties.

Geraniums, 2-inch pots, \$3.00 per 100;
2½-inch pots, \$4.00 per 100; 3-inch
pots, \$7.00 per 100; 4-inch pots,
\$10.00 per 100.

Begonias, all sizes.

Abutilons, all sizes.

Ageratum.

Alternantheras.

Asparagus Tenuissimus.

Alyssum

Achyranthus.

Chrysanthemums.

Carnations.

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Coleus.

Fuchsias.

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Ferns, 3-inch pots, \$8.00 per 100.

Palms in all sizes, and a full line of
Greenhouse Stock.

HARDY ROSES in all sizes, from 3-inch pots up to 6-inch pots. Also dormant two year old stock.

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PRIZE ASTER SEED.
NEW CROP.

Our strain of Truffaut's Prize Aster has proven to be the most desirable and profitable sort for Florists' use, either for pot culture or cut flowers. The colors are rich and brilliant. We have flattering reports from those who grew them in past seasons.

	Trade pkt. per oz.
White.....	.50 \$3.00
Pink.....	.50 3.00
Blue.....	.50 3.00
Purple Violet.....	.50 3.00
Scarlet.....	.50 3.00
Crimson Ball.....	.50 4.00
Mixed of all colors.....	.50 4.00

PERFECTION BALSAM SEED

Extra Double White, trade pkt. 50c.; oz. \$2.

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GERANIUMS. In double and single, Novelty and Standards, from 2½ and 3-inch pots. \$30 per 1000.

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PASSIFLORA CONSTANCE ELLIOTT and CERULEA. \$50 per 1000.

ALYSSUM. Double White. \$10 per 1000.

ROSES. Fine Varieties and well grown. \$40 per 1000.

CHRYSANTHEMUMS. The cream of the varieties. \$40 per 1000.

PRIMULAS. Elegant plants in bloom, whites, pinks, reds. \$40 per 1000.

H. W. BUCKBEE'S
FOREST CITY GREENHOUSES
ROCKFORD, ILL.

BOUVARDIA DAVISONI.

10,000 fine young plants propagated from root cuttings, clean and healthy, \$1.25 per 100; \$10 per 1000.

BEGONIA METALLICA—Strong, 4-inch pots, \$1.50 per dozen; \$10.00 per 100.

GERANIUM MME. SALLEROI—2-inch pots, 75c. per dozen; \$4.00 per 100.

PANSIES—One of the finest strains in the country, of my own selection. Fine plants, \$1.00 per 100; \$5.00 per 1000.

MYOSOTIS ELIZA FANROBERT—Fine strong plants, \$3.00 per 100; \$25.00 per 1000.

DAISIES (Bellis Perennis)—Good clumps, \$2.50 per 100; \$20.00 per 1000.

WM. J. EISELE, Torridale, Philadelphia, Pa.

Ferns! SURPLUS STOCK, Ferns!

Fine plants ready for immediate use.

Especially adapted for filling baskets, jardinières, etc., in 2½ and 3½-inch pots.

Per 100
2,000 *PTERIS SERRULATA*..... \$1.00

1,000 *PTERIS CRETICA* albo lineata..... 4.00

5,000 *ADIANTUMS*, mixed..... 5.00

These Ferns must be sold at once to avoid shifting.

J. L. LOOSE,
ALEXANDRIA, VA.

E. BONNER & CO., XENIA, O.

SPRING TRADE LIST, 1890.

	PER 100		PER 100
POLYANTHA ROSES—Mignonette, Perle d'Or, Paquerette, Miniature	3 50	COLEUS—Katatinka, Crystal, Herr's Seedling, Mr. Hunt, Rag Carpet, Louisa Beck, Variabilis, Golden Bedder, Hon. C. D. Jacob	2 50
EVER-BLOOMING ROSES—Agrippina, Isabella Sprunt, Souvenir de David, Catharine Mermet, Hermosa, Duchess de Brabant, Souvenir d'un Ami, Mme. Margottin, La Pactole, Mme. Pauline La Bonte, Louis Richard, Reine Marie Henriette, Coquette de Lyon, Mademoiselle Rachel, Countess Frigneuse, The Bride, Mme. Watteville, Bon Silene, Marechal Niel, Bella, Melville, Mme. Lombard, Purple China, Mademoiselle Francis Kruger: Purchaser's selection	3 50	ACHYRANTHUS—Aurea Reticulata, Formosum, Gilsonii, Lindenii, Verschaffeltii, Walacii	2 50
Strictly our selection	3 00	ALTERNANTHERAS—In variety	2 50
HELIOTROPE—Mme. Blouay, Albert Delaux, Chieftain, Louis Delaux	3 00	ABUTILONS—In variety	3 00
LANTANAS—In variety	3 00	GERANIUMS—In variety	2 50
SALVIAS—In variety	2 50	SCENTED GERANIUMS—Rose, Shrubland Pet, Quercifolium	3 00
CHRYSANTHEMUMS—In variety	3 00	BEGONIA REX—Queen Victoria, Louis Chretien, Merveille	75
		Mme. Treyve, Edward Pynaert	60
		BEGONIAS FLOWERING—Metallica, Decor, Berthe Chateaurocher, Semperflorens gigantea rosea	75
		Argentata Cuttata	1 00
		Rubra, Rubella, Marguerite, Feastii, Alba Picta, Riciniifolia Maculata	50

CASH MUST ACCOMPANY ALL ORDERS FROM FIRMS UNKNOWN TO US.

E. BONNER & CO., MAPLE GROVE GREENHOUSES, XENIA, OHIO.

CUT BLOOMS LILUM HARRISII FOR EASTER

All long stems, and of first quality. Our crop of this is now in bud in our greenhouses here, and will be in prime condition for Easter, having been grown very cool.

No "Bermuda Grown" Flowers handled,
as the long voyage renders them practically worthless. **Can be shipped safely as far west as Kansas. CAN BE SUPPLIED IN ANY QUANTITY.**

F. R. PIERSON, TARRYTOWN, NEW YORK.

We are now ready to book orders for BULBS of this Lily for "OUR SPECIALTY." next season. This is, as is well known,

	Per 100
500 Dracæna, 3½-in. pots	\$8.00
2000 Verschaffeltii, 2½-in. pots	2.25
Rooted Cuttings of Chrysanthemums	2.00
Rooted Cuttings of Coleus	1.25

**W. W. GREENE, SON & SAYLES,
WATERTOWN, N. Y.**

GLADIOLUS BULBS. 100 named varieties and all mixed together. This collection has taken the first premium wherever exhibited, and the quality has not been lowered by removing the best to be sold in separate classes. While the prevailing colors are pink and white, all colors are represented. Price, for first size, \$1 per 1000; second size, \$7.50 per 1000.
A. CRAWFORD, Cuyahoga Falls, O.

	Per 100
Grape Vines, Empire State, 2 year	30.00
" " " " 1 year, strong	7.00
Ampelopsis Veltchii, 1 yr., field grown, 1000, \$18, 5-inch pot plants, 1 year	3.00
Geraniums from 2½-in. pots, fine plants, 12 to 30 varieties, double and single	2.00
" " " " Rose and Mme. Sallier	2.00
Petunias, finest double	per doz. 40c. 3.00
Daisies, English double white, and Longfellow pink	per doz. 25c. 2.00
Pansies, fine strain, transplanted	1000, \$6.00 75
Moon Flower and Sweet Alyssum	per doz. 40c. 2.50
Asters Victoria, transplanted, bloom next June	1.00

This is a cash list, good till April 1st.
E. FRYER, Delaware, O.

**HEALTHY AND WELL-ROOTED RUNNERS OF
MARIE LOUISE VIOLETS,**

70 cents per hundred; \$6.50 per thousand.
J. J. LAMPERT, Xenia, Ohio.

DAHLIAS, choice named, 50 var., show, cactus and pompon, strong roots, per doz. \$1.00; per 100, \$15.00; per 1000, \$100.00.
CYCLOMENS, fine plants in bud, per doz. \$1.00; per 100, \$7.00.
GRAPES VINES, 10 kinds, choice, 2 year, including Niagara, Moore's Early, Brighton, Etc., per dozen, \$2.00.
CLEMATIS, choice, 2 year, strong, best kinds, per dozen, \$3.00.
MOSS ROSA, strong plants, per doz. \$1.50; per 100, \$8.00.
ARISTOLOCHIA (Dutchman's pipe), per dozen, \$1.50; per 100, \$10.00.
ANEMONES VITICIFOLII, strong, 2 year, per doz. \$1.00; per 100, \$6.00.
All kinds greenhouse, bedding, small fruit, hardy shrubs, and vegetable plants.
Correspondence solicited.

F. A. BALLEE, Bloomington, Ill.

New Jersey to the Front.

February 14 the representative team of the New York Florists' Bowling Club visited Summit, N. J., for the purpose of giving an exhibition game and to give the young men of Summit and vicinity a few points in bowling. Arriving early in the afternoon they proceeded at once to get into practice and become familiar with the alley. After a recess at 6 p. m. a game was arranged between six of the New York team and a like number of Summit men. The accompanying score will show how well the New Yorkers succeeded in educating the Summit boys. They are very apt and "catch on" early.

First game New York	First game New Jersey
J A Penman . . . 130	J N May . . . 128
W S Allen . . . 111	J Barnes . . . 107
C B Weathered . . 103	A Attwell . . . 109
C P Anderson . . . 101	G Sawyer . . . 113
J Miesom . . . 102	B E Finnegan . . 115
C H Allen . . . 92	G L Graham . . . 98
..... 636	..... 670
Second game	Second game
J A Penman . . . 116	J N May . . . 137
W S Allen . . . 116	J Barnes . . . 104
C B Weathered . . 109	A Attwell . . . 117
C P Anderson . . . 115	G Sawyer . . . 106
J Miesom . . . 99	B E Finnegan . . 110
C H Allen . . . 101	G L Graham . . . 103
..... 656	..... 686

During the progress of the game the following remarks were overheard. "I believe it's the pickles I ate at supper that's upset my rolling." "It's all on account of that pink painted celery." "Say Charlie, let's hire some of these country boys to play for us in the next game." There was plenty of fun all around, and particularly for the Summit boys. The last heard from the New Yorkers as they departed for home was: "We may not get the World's Fair after all; good night." N. J.

CYCAS REVOLUTA,

In all sizes from 8 inches to 3 ft. high, laid down in San Francisco, freight and all other charges paid.

Pot grown, well established plants, with root balls (root balls excluded), per 100 lbs. U. S. currency, \$18.00.

Open ground, well rooted, out of my Yokohama nurseries, per 100 lbs., U. S. currency, \$15.00.

Freshly collected, prime quality, per 100 lbs., U. S. currency, \$12.00.

[Orders for less than 500 pounds cannot be executed, as orders for few hundred pounds would cost too much freight in proportion.]

RHAPIS FLABELLIFORMIS.

Also laid down in San Francisco.

Fine cultivated pot plants, from 18 inches to 2½ feet high, per 100 shoots, U. S. currency, \$30.00.

The same, freshly collected, per 100 shoots, U. S. currency, \$10.00.

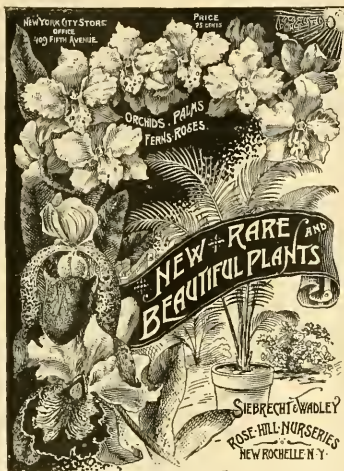
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I have a Large Stock of DECORATIVE PLANTS, as

PALMS, DRACÆNAS, FERNS, PANDANUS, ETC.,

for immediate use, and a still larger stock growing on for Spring sales, as well as of all the choicest BEDDING and CUT FLOWER PLANTS, especially ROSES. Everything in excellent condition.

Inspection of my stock at the Nation's beautiful Capital cordially invited.

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JAPANESE MAPLES,

of which we import 20 choice varieties.

Maple Seedlings for Grafting.

HARDY MAGNOLIAS and other Flowering Shrubs.
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Thirty choicest varieties from Japan.

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Fresh from Japan and Australia.

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A very Choice lot on hand.

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Many additions of Choice New varieties this season.

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TUBEROUS BEGONIAS.

Splendid strain, with upright flower stalks, large flowers of fine shape, in a great variety of brilliant colors.

Per 100, \$4 to \$8. Extra Selected, per 100, \$3.

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Our catalogue of new, rare and beautiful plants for 1890 will be ready in February. It contains a list of all the most beautiful and rare Greenhouse and Houseplants in cultivation, as well as all novelties of merit, well grown and at very low prices. Every plant-lover should have a copy.

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	Per 100
Brahea Filamentosa, 2-inch pots.....	\$ 5.00
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Also Geraniums and other plants cheap.
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TO * FLORISTS * WANTING * ORCHIDS FOR CUT BLOOM.

In order to make room for new Importations, we will close out at **LOW PRICES**, in large quantities, the following **WINTER-BLOOMING ORCHIDS**, and which we find **THE BEST** for the **CUT BLOOM MARKET**, viz.:

CATTLEYA TRIANÆ,
" **PERCIVALIANA,**
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We will sell 100 plants for \$100.
500 plants for \$400.
1000 plants for \$700.

In an assortment of the above.

PLANTS DELIVERABLE AT ANY TIME BEFORE MAY 1, 1890.

ALL NICELY POTTED AND IN GROWING CONDITION FOR NEXT SEASON.

THE KENT PLACE NURSERIES, SUMMIT, N. J.

500,000 CHOICE * FERNS.

We offer the following varieties in splendid condition from 2½-in. pots, 8¢ per 100; 3-4 in. pots, \$3 per 100.

Adiantum Cuneatum, **Onychium Japonicum,**
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The sorts noted below from 2½-inch pots, \$5 00 per 100; 3-inch pots, \$6 00 per 100.

Adiantum Pubescens, **Pteris Argylea,**
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At lowest possible rates. Send your order to

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One of the finest garden plants out. Strong
blooming plants. per dozen, \$2.00, \$10.00
2-inch pots 4.00
Chrysanthemum Maximum. 8.00
" **argyrea.** \$3.00 to 8.00
Dahlia, large roots in 25 best sorts. 5.00
Clotie de Dijon. 4.00
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10,000 roses ready for shipment. See our Wholesale Price List.

NANZ & NEUNER,
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Large field-grown roots in 60 choice varieties of large-flowered, Pompon, Single and Cactus, whole roots. per 100, \$10, \$50 00
GLADIOLI in splendid mixture, mostly light colors per 100, \$1 75, 15 00
TUBEROSE Pearl, first-class. 15 00
" Double, first class. 15 00
Per 100

AMPELOPSIS VEITCHII, strong 2 yr. plants, from 3-inch pots, 3 to 4 feet. \$10 00
HYDRANGEA paniculata grandiflora, strong thrifty stock, 3 to 3½ feet. 12 00
" 2½ to 3 feet, 1 to 1½ to 2 feet. 8 00
CANNA Ehemanni, strong. 10 00
CANNAS in variety, fine assortment. 5 00
CHRYSANTHEMUM Maximum, one of the finest new hardy herbaceous plants, blooming from July until frost, fine for cut flower or pot culture. 10 00

PALMS—**Latania Borbonica**, 2½ in. pots. Per 100 7 00
" **Latania Bor.** 3 in. pots, 10 to 12 in. high. 10 00
" **Latania Bor.** 4 in. pots, 15 to 18 in. high. 30 00
" **Latania Bor.** 24 in., 3 to 4 leaves, per dozen, \$15 00
" **Chamerops Excelsa**, 3 in. pots, 10 to 12 inches high. 12 00
" **Chamerops Excelsa**, 2½ in. pots. 7 00
CARNATIONS E. H. Hill, Columbia, Grace Wilder, Haze's White, J. J. Harrison, Portia and Silver Spray. 4 00
" **Starlight.** 6 00
" **Tidal Wave.** 8 00
COREOPSIS Lanceolata. 8 00
CALADIUM Esculentum, 7 to 9 in. in circum. 8 00
" " 6 to 7 in. in circum. 6 00
" " 5 to 6 in. incl. cum. 3 50
ENGLISH IVY, 2½ to 4 feet high. 8 00
AMPELOPSIS VEITCHII, 2 to 3 feet. 8 00

Full stock of New and Standard varieties Roses, Begonias, Coleus, Geraniums, Chrysanthemums, Bedding Plants, Etc.

Standard Pears in large supply. Finest assortment of Fruit and Ornamental Trees, Small Fruits, Shrubs, Etc. SEND FOR TRADE LIST.

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TUBEROUS BEGONIAS.

We have the largest collection of choice named varieties in this country, containing over one hundred named varieties.

The cream of the best French, Belgian and English collections. See AMERICAN FLORIST of August 1st, 1889 for description of some of them.

Send for Catalogue. Seed carefully hybridized, single or double, trade pkt. \$1.

F. J. MEECH & SON, Charlevoix, Mich.

FLORISTS!

Fungus of the Cutting Bench;

Do you know what it is?

HAMMOND'S GRAPE DUST KILLS IT.

SOLD BY THE SEEDSMEN.

SLUG SHOT, FISHKILL-ON-THE-HUDSON, N. Y.

Hints to Shippers.

The unsystematic methods of doing business of some shippers cause much vexation and result in loss of trade. It is not my desire to attempt to instruct the readers of the *FLORIST* in all the details of conducting a successful shipping business, but merely to call the attention of shippers to some omissions which certainly result in injury to themselves.

Whenever an order is received its receipt and the amount of remittance should be acknowledged without delay. If you can not fill the order, or if you lack something which under the circumstances you deem essential to satisfy the customer, inform him of the fact at once. Also notify him when the goods are shipped, printed postal cards answer the purpose. By keeping the customers promptly informed as to these points you inspire confidence and encourage further patronage; if you neglect them, delays inspire distrust and the uncertainties of the situation are doubly vexatious. I might add that great care should be used to pack in such a manner that you can secure low express and freight rates on the goods. I get goods of a certain kind from a distant city cheaper than from one nearer to me because the goods are packed in such a manner that the freight rate is less. To make your business a success omit nothing essential to it. I. J. BYERS, Nickerson, Kan.

A Florist's "Want."

A reader sends us the following "want" adv. clipped from the *New York World* of February 2 and asks: "Can you do anything for poor Mr. B—?"

A FLORIST desires to correspond with an educated lady, under 31, with a view to matrimony; money no object; no objection to widows; photos exchanged; no agents, no triflers. Address C. F. B—, Borist, Galveston, Texas.

Well no, we don't see that we can. He seems to have proceeded in a business-like way to help himself. And as he doesn't seem to be too exacting in his requirements, his yearning heart has probably been tranquilized ere this. If you don't see what you want, advertise for it.

AUCTION SALES

of Plants, Bulbs and all Horticultural Spring Stock will commence

IN MARCH.

We solicit the support of the Trade. Parties wishing to consign, will please advise us timely.

AUGUST RÖLKER & SONS

Horticultural Warehouse,

No. 136 W. 24TH ST., NEW YORK.

Probst Bros. Floral Co.,

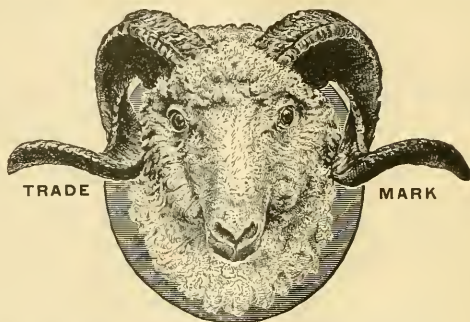
1017 Broadway,

KANSAS CITY, MO.

Primula Obconica, 3½ in., in bloom	\$8 00
4 in., in bloom, per doz.	\$1.50, 12 00
Primroses, single, fine, 3 in.	5 00
4 in., single, fine, per doz.	\$1.25, 8 00
Abutilon Golden Fleece, 2½ in. 1 25, 8 00	
" 3½ in. 2 00,	
Callas, blooming plants, 4 in.	20 00
" 5 in.	30 00
Impatiens Sultana, 2 in. \$4, 4 in.	15 00
Ageratum, sorts, 2-inch.	2 50
Cuphea, sorts, 2-inch,	2 50
25 or 50 of any of the above at the 100 rate.	

Established 1845.

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AND RETAIL.

We offer Fresh Seeds of the following, all of the finest quality:

- ASTER—New Dwarf Pearl. White, fine for florists. Per 1000 seeds, \$2.00.
 " Zingibell's White. Per ½ oz. \$1.50.
 " Queen of the market. Mixed, per oz. \$1.50
 " Peony Flowered Perfection. White, crimson blood red, rose, blue. Each, per oz. \$2.00
 " Peony Flowered Perfection. Mixed, per oz. \$1.50.
 " Victoria. White, crimson, rose. Each, per oz. \$2.50.
 " Victoria. Mixed. Per oz. \$2.00.
 BALSAM—Double white. Per oz. 80 cents.
 " Double White Perfection. Extra, per oz. \$2.00.
 CARNATION—New Double Marguerite. 100 seeds 50 cents; 1000 seeds, \$4.00.
 CARRA—New Dwarf French varieties. Per oz. \$1.
 CYCLAMEN PERSICUM—Wiggins' Choice Strain. Trade pkt 50 cents. Per oz. \$5.00.
 CYCLAMEN PERSICUM GIGANTEUM—100 seeds, \$1.
 CENTAUREA GYMNOCARPA—Per oz. 60 cents.
 CENTAUREA CANDIDISSIMA—1000 seeds, 40 cents; per oz. \$2.00.
 CHRYSANTHEMUM—Choice Hybrids, from Spaulding's collection. Trade pkt \$1.00.
 COSMOS HYBRIDUS—Mixed. Per oz. 75 cents.
 " White. Per oz. \$1.00.
 CORGEA SCANDENS—Per oz. 75 cents.
 HOLLYHOCK—Double White or Mixed. Each, per oz. 75 cents.
- MIGNONETTE MACHET—Per oz. 75 cents.
 MUSA ENSETTE—(Abyssinian Banana.) 100 seeds, \$5.00.
 PETUNIA—Large Flowering, Finest Mixed. Trade pkt \$1.00, per oz. \$3.00.
 " Large Double, Finest Mixed. Trade pkt \$1.00.
 PHLOX DRUMMONDII—Dwarf, Compact White. Per oz. \$3.00.
 PHLOX DRUMMONDII—Dwarf, Compact, Mixed. Per oz. \$3.00.
 PHLOX DRUMMONDII GRAF GERO—For pots. 1000 seeds, \$1.00.
 SALVIA SPLENDENS—Per oz. \$2.00.
 " "Ingenieur Clavenard." New 100 seeds, \$1.00.
 SOLANUM CAPSICASTRUM—"Little Gem," Fine for pots. Trade pkt. 50 cents.
 STOKK—Large flowering, Ten Weeks, pure white. Per oz. 300.
 " Large flowering, Ten Weeks, finest mixed. Per oz. \$2.50.
 " Large flowering, Wallflower-leaved, white. Per oz. \$3.50.
 " Large flowering, Wallflower-leaved, "Snowflake." ½ oz. \$1.50.
 SMILAX—Per oz. \$1.25.
 SWEET PEAS—10 varieties. Per lb. 50 cents.
 THUNBERGIA—5 varieties. Per oz. 30 cents.
 VERBENA HYBRIDA—Extra Choice Mixed. Per oz. \$2.00.

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SALZER'S NORTHERN GROWN.

SEEDS

My Market Gardeners List is now ready, containing many Rare Novelties found in no other Catalogue in America. I make a great specialty of Early Vegetables and Tomatoes.

SALZER'S EARLIEST.

Out of over a hundred sorts tried in 1889, this proved to be the earliest by all odds. Pkg. 5c; ½ oz. 25c; oz. 50c.

SALZER'S LA CROSSE SEEDLING.

This is my New Tomato Novelty, and we guarantee it to be the finest prolific, large sized, early Tomato in the trade. Pkg. 5c; ½ oz. 40c; oz. 80c. ½ lb. \$1.75.

SALZER'S MORNING STAR. A Giant Tomato. Pkg. 8c; oz. 50c.

TRADE LIST FREE.

SPHAGNUM MOSS. For immediate delivery. Bale \$1.25; 5 bales \$6.00.

JOHN A. SALZER SEED CO., LA CROSSE, WIS.

WE HAVE A LARGE STOCK

DAHLIAS.
 GLADIOLUS.
 RICHARDIA.
 MILLA BIFLORA.

AMPELOPSIS.
 NOON VINE.
 GERANIUMS.
 PANSIES.

And a general assortment of Greenhouse and Bedding Plants and Summer flowering Bulbs. Write for Wholesale Price List for Spring, 1890.

MICHEL PLANT AND SEED CO. ST. LOUIS MO,

THE ROSE OF THE YEAR.

CALIFORNIA'S NEW ROSE "THE RAINBOW."

— THE ROSE FOR EVERYBODY! —

**The most Vigorous, Free-Blooming, Forcing
Rose ever Introduced.**

A most lovely Rose of a deep Mermet pink, striped and splashed in the most fanciful way with deep Gontier color, but only enough to add to its beauty, and with base of petals of rich amber. Flowers well carried on long stiff stems, of the same shape as Gontier but most decidedly larger, sweeter and of greater substance.

Remember, "**THE RAINBOW**" is a sport from Papa Gontier, one of the most popular Winter-bloomers. It will do well with everybody. It surpasses its parent in freedom of growth and bloom by far. Experience has taught, that sports from Winter-bloomers have proved to be Roses most fit for the same purpose: for instance, The Bride, Duchess of Albany, etc.

"**THE RAINBOW**" is only offered to the trade. Cut flower growers as well as nurserymen will certainly see the advantage of getting a new American Rose which offers such inducements to each of them.

I am ready to book orders now. All orders will be filled strictly in rotation, commencing July 1st, 1890, at the following prices:

1 PLANT, \$1. 12 PLANTS, \$10. 100 PLANTS, \$75.

The plants will be from 3-inch pots, placed out of doors during June, so as to stand shipment well.

JOHN H. SIEVERS,
25 POST STREET,
SAN FRANCISCO, CAL.

"**THE RAINBOW**" received the highest award in the gift of the California State Floral Society at their last Fall Exhibition,

Killing Greenfly.

For the benefit of fellow sufferers I give my experience with various methods of fighting the aphids.

First I procured two bales of tobacco stems and packed them about the hot water pipes. After waiting several days for results I came to the conclusion that the treatment was good for the little fellows as they seemed to be in a thriving condition and possess unimpaired appetites. Then I tried evaporating tobacco water, dropping red hot bricks into pans of water in which stems had been soaked. Result: Most of those that were infants at the beginning of this experiment had become grandmothers. Then I constructed a tank on the outside of furnace and ran a pipe from it through furnace and part of the into greenhouse; this evaporated about ten gallons of tobacco water per night. Kept this up for about a week, meanwhile matters began to look rather serious for the aphids as their natural food was becoming rather scarce and their families were still increasing. Next I procured a large iron kettle, filled it with tobacco stems, rammed them down hard, put a small quantity of coal oil in the center, set fire to the coal oil, then covered the top with earth about three to four inches deep, leaving a hole in the center for the escape of smoke. This caused the stems to burn slowly, giving a small volume of smoke for a long time. Found this method very satisfactory. It does not injure the plants if well syringed and it is not good for the aphids.

Pemberton, N. J. A. ROSBACH.

Orders Booked Now for the New COLEUS, CHRYSANTHEMUMS, ETC.

New Coleus **LOTTE GREEN**, of sturdy growth, very dwarf in habit, desirable for bordering and carpet bedding. It never goes up stairs, and is of many colors; footstalk and center of leaf pearl pink and purple with various other tints shading off to red and brown with a green border. Four years tested, and brings the answer every time: Try it. 25 cents, each; \$2.00 per dozen.

VERSAHAFELTII, J. red, a variety raised by us last season is similar to old Versafield, but a stronger grower. 25 cents each; \$2.00 per doz.

NEW CHRYSANTHEMUMS raised by Sheldrick, **GOLDEN BEAUTY**, a splendid grower, of dwarfish stock habit, of the Chinese type, and richest golden yellow; probably the finest yellow in existence. 25 cents, each; \$2.00 per doz. **PURPUREA**, a colossal grower, making fine show plants; flowers of medium size, very numerous and of perfect form. Fine purple, a scarce color, and before we get out 25 cents each; \$2.00 per dozen. **RED BIRD**, a distinct novel variety, of vigorous growth dwarf spreading habit and fine pom-pom style; very pretty, flowers abundant beautiful bright cherry red, yellow center; there is nothing like it. Scarce. 50c each; \$4 per doz. Ready for delivery April 1st, by mail free.

Also rooted cuttings of **QUEEN FEVERFEW**, **FUCHSIA**, finest varieties mixed. **BELL-TROPE** White Lady, Lady Versalaise, etc. **Stevia**, tall, dwarf and variegated.

Laetanas in variety, \$1 per 100; \$5.00 per 1000. **Ageratum White Cap**, Cape's Gem, Everblooming "forget-me-not", from cold frame, 40c per 100. **Wormwood Verbenas** in splendid variety, \$1.25 per 100; \$12 per 1000.

Carnations Robert Craig, DeGraw, C. King, etc., \$1.50 per 100. Ready March 10 to 15.

Chrysanthemums, stock weeded down to 150 varieties including most of the best new and older kinds, all styles and colors, strong. Diana, F. Henderson, Christmas Eve, good plants, well started, \$2 per 100; \$15 per 1000, not sold.

Begonia Sandersonii, everblooming scarlet, other sorts in limited quantities, from 25¢ each, \$3 per 100. Rooted cuttings, \$1.50 per 100.

A few thousand **Parisian Beauty** Pansies, small plants suitable for stock, 20c per 100.

Hollyhock, double, fine strain seedlings, nice plants, 25 per 100.

10000 Tuberoses, fine strong bulbs, tall size, \$2 per 100; 2nd size, \$1.25 per 100.

1000 Concord Grape Vines, 2 year, \$4.00 per 100; 3000 1 year, \$2.50 per 100.

500 Moore's Early, 2 year, 85¢ per 100; 1000 1 year \$4 per 100.

1000 Warden, 1 year, \$3 per 100.

1000 Wilson Blackberry Plants, 75 cents per 100; \$1.50 per 1000.

500 Early Cluster Blackberry, \$2 per 100.

J. C. GIBSON,

P. O. Box 102, WOODBURY, N. J.

CACTI.

In small or large lots, many varieties, shipped to any part of the world. Large lots very cheap. Address me at TUCSON, ARIZONA.

DAVID KENNEDY.

When writing mention American Florist.

Rooted Cuttings

Of **CARNATIONS** I can take no more orders excepting for Hinze's or E. G. Hill, may have others later, if so, will name them in this advertisement. **COLEUS**, have an abundance now ready of all excepting Golden Bedder, at 90c, per 100; \$7.00 per 1000. G. B. after April 1st. **FUCHSIA**, Hill, Phenomenal and Storm King, at \$2.00 per 100, in mixture with others at \$1.50 per 100. **SMILAX**, plants once reset, at \$6.00 per 1000; 75c. per 100. These are sure to please. **PANSIES** at \$15.00 per 100, cold-frame plants. Send trial order. **CANNA EREMANII** at \$1.50 per dozen; \$10.00 per 100. Samples for 10 cents.

ALBERT M. HERR, Lock Box 338, Lancaster, Pa.

CARNATION BLOOMS.

A full line of fancy colored, long and short stems. I make a specialty of shipping long distances. No more **ROOTED CUTTINGS** of standard varieties to offer this season, except the following:

NEW PINK CARNATION "CHRISTMAS."

The competitor of Grace Wilder. I will now sell Rooted Cuttings of it at \$5 per 100; sent safely by mail. Sample blooms mailed on receipt of 15 cents.

CHAS. T. STARR, AVONDALE, Chester Co., PA.

HEADQUARTERS FOR STOCK OF NEW CARNATIONS

WM. SWAYNE, L. L. LAMBORN, Pure White; PRIDE OF KENNETT, Dark Crimson.

Send for price list of Rooted Cuttings of these and other leading market sorts.

My Specialty is Carnation Growing.

Our Stock is true to name and free from disease.

WM. SWAYNE, P. O. Box 225. KENNETT SQUARE, PA.

CARNATIONS.

Rooted Cuttings NOW READY, or pipe if desired.

— LARGE STOCK OF —

WM. SWAYNE AND L. L. LAMBORN.

Also Runners or Rooted Cuttings of **VIOLETS**, Marie Louise, Neapolitan, Swanley White, W. R. SHELWIRE, Avondale, Pa.

CARNATIONS AND VIOLETS.

Rooted Cuttings of Carnations and well Rooted Runners of Violets in any quantity, ready now. Price on application.

JOS. RENARD,

UNIONVILLE, Chester Co., PA.

Telephone No. 3 Unionville. All telegrams should be sent to WEST CHESTER, PA.

Strong Rooted Carnation Cuttings,

Taken from healthy, blooming plants.

Orders will NOW be taken. 20 of the leading varieties.

SEND FOR PRICE LIST.

TUNIS DePEW, Nyack, N. Y.

NEW BEGONIAS.

Argentea Guttata	Per 100 \$10 00
" Elegans	10 00
" Diadem	10 00
Gloire de Jouv	25 00
Madam Lionnet	25 00
Clementina	25 00
Marquis de Peralta	25 00

ROSES, CARNATIONS, ETC., ETC.

SEND FOR TRADE LIST.

C. H. MURPHEY, Urbana, Ohio.

STRONG ROOTED PLANTS.

FREE BY MAIL.	Per 100
Geranium, Chrysanthemum, Begonia	\$2.00
Fuchsia, 5 best kinds S. K.	1.00
Colonia, Ageratum, Cuphea	1.00
Alternanthera, 3 kinds	1.00
Cash with order. C. W. TURNLEY, Haddonfield, N. J.	

GRACE WILDER.

Healthy, Well Rooted, January struck plants from the sand bed.

— ALSO —

May Queen, Portia, Florence,

Anna Webb, Silver Spray,

Hinze's White, Etc., Etc.

For prices, address

H. E. CHITTY,

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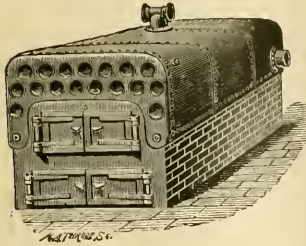
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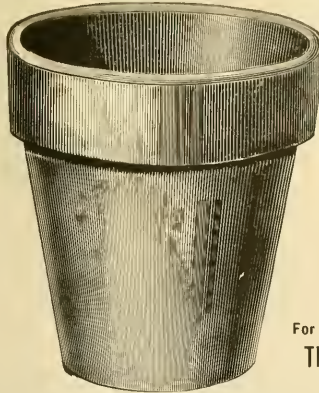
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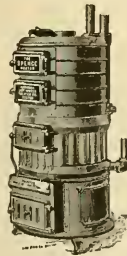
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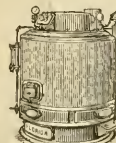
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Index to Advertisers.

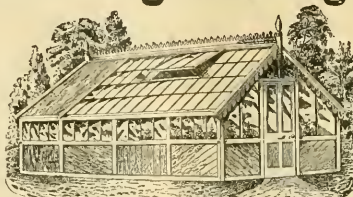
Advertising Rates, etc.	340
Aldine Printing Works	343
Allen S. L. & Co.	343
Allen, W. N.	341
Angier P. A. & Co.	353
Association Flora	345
Baller F. A.	347
Bayendorfer H. & Co.	353
Beniz Albert	352
Berger, H. H. & Co.	349
Bancs A. & Co.	358
Bock Wm A.	342
Boehmer Louis	346
Bonner E. & Co.	342
Brackenridge & Co.	348
Brague L. B.	348
Bruckman Alfred	342
Brown H. S. & Son	358
Buckbee H. W.	346
Burrow J. G.	345
Caldwel Geo W.	357
Carmody J. D.	356
Casper I. A.	346
Chappel Harry	344
Chandler Alfred	353
Chipman Bros.	345
Chitty H. E.	352
Crawford M.	347
DePew Tunnis	352
Dever J. A.	344
Dervine, Peter	346
Dice, John L. & Co.	355
Dillon, J. L.	341
Dunge & Conrad Co.	359
Dreer, H. A.	339
Eisele W. G.	346
Eisele W. J.	345
Ekelund John	346
Elgin Rose Co.	346
Elliot Wm & Sons	350
Ellwanger & Barry	357
Faber Bros.	357
Ferguson John B.	343
Ferry D. M. & Co.	343
Fisher Bros & Co.	348
Flak Chas H.	341
Frese O W.	341
Fryer E.	347
Fulweiler P. C.	355
Gardner Jno & Co	348
Gartfield Park Rose Co	341
Germond & Cosgrove	359
Gibson J. C.	352
Glauber Emil	346
Greene W W Son &	347
Sayles	347
Grimth, Jas	350
Grimth, N. S.	346
Hales, H. W.	338
Hallock, V. H. & Son	344
Hammond, Benj.	349
Hammond & Hunter	341
Hancock George	352
Henderson John Co.	359
Herendeen Mfg. Co.	356
Herr, Albert M.	352
Hew A H & Co.	354
Hillfinger Bros.	354
Hillpard E.	359
Hitchins & Co.	346
Hollis George	358
Hooker, H. M.	353
Horan, Edw. C.	341
Hudson John M.	341
Hulse & Markuth	341
Huzar E. G.	343
Ives, J. H.	354
Jackman Geo & Co.	345
Jewett Z. K.	354
Johnson & Stokes	342
Kelsey F. W.	344
Kennedy David	352
Kennelott Bros.	341
East Place Nurseries	349
King Jas.	345
Koffman R.	342
Krauer I. N. & Son	342
Rick, W. C.	354
Krombach Charles	343
Lampert J. J.	347

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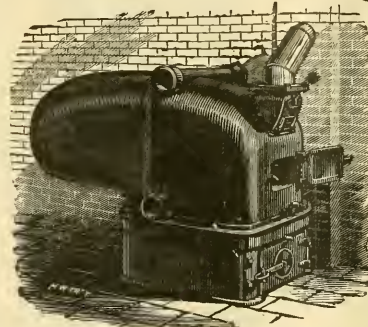
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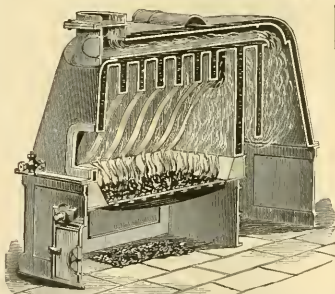
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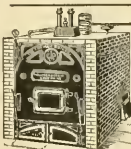
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Vol. V.

CHICAGO AND NEW YORK, MARCH 15, 1890.

No. 111.

THE AMERICAN FLORIST

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THE AMERICAN FLORIST COMPANY.

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J. M. JORDAN, St. Louis, Mo., president; M. H. NORTON, Boston, Mass., vice president; WM. J. STEWART, 67 Bromfield St., Boston, Mass., secretary; M. A. HUNT, Terre Haute, Ind., treasurer. The sixth annual meeting at Boston, Mass., August, 19, 20, 21, 22, 1890.

CONTENTS.

Education of young gardeners	357
Wedding decoration (illustration)	359
Self Education	359
Buying on the co operative plan	360
A word for Detroit	360
Hydrangea ramulus coccinea (illustration)	360
Society of Indiana Florists	361
Boston notes	362
Washington	362
Orchid show at New York	362
Eucharis amazonica (with illustration)	363
Cost of production	363
Orchids—Langwater Gardens	364
—A double cypripedium	366
Kalanchoe carne	366
Name-plate—Help from experiment station	366
Chrysanthemum "Ostrich Plume"	367
Detroit exhibition (with plan)	367
American Hort. Society	367
Cut worms	367
Carnations, Promising sorts	368
—Carnation growing	368
—Cost of Production	368
—The Buttercup	368
—Grace Wilder	368
Heating hotbeds (with figure)	368
Device for spraying insecticides (figure)	368
News notes	368
Looking backward	369
Exhibitions	374
Hydrangeas for Easter	374
Carnation Silver Spray	374
Pink Perle	374
Catalogues received	374
Steam beating	376
Perle and Niel	378
Washington	380
Hot water in 2-inch pipes	382
Asparagus tenuissimus	384
Chicago	386
Slugs	388
Mild winter in Ireland	390
Chrysanthemum centenary festival	390

THE FLORIST was started as a 16-page paper. Soon it was found necessary to issue an occasional 20-page number, and before very long 20 pages were given in each issue, with an occasional 24-page number. Later on 24 pages was established as the regulation size, with a 28 or 32-page number at intervals as necessity arose. This issue contains 36 pages, four more than any previous issue, and twenty more than the earliest issues. The possibility of a weekly issue does not seem to be very distant. THE FLORIST has not yet attained its growth.

The Education of Young Gardeners.

[Read before the Gardeners' and Florists' Club of Boston by Prof. B. M. Watson, Jr., of the Bussey Institute.]

GENTLEMEN:—The subject of technical education is at the present time claiming much attention, by it is meant teaching young men and boys practical work in much the same way that medicine or law is taught. These two professions are good examples, because it was not so very long ago that law and medicine were taught by methods very like the apprenticeship system in the trades and arts. A man now goes to a law school or medical school where formerly, although not always bound as an apprentice, he nevertheless entered the office of a lawyer or doctor, in some cases becoming a member of the family, and obtained his education not only by reading with them but also by helping as well as he could in the simpler work of his employer.

A machinist or carpenter could only gain the requisite knowledge of his chosen industry by "hiring out" or "being bound" to a master smith or carpenter until within a very short time; indeed although now certain opportunities are offered in the various technical schools, comparatively few lads are so placed that they can take advantage of the offer. In the same way the education of young gardeners has been and is almost totally given over to the apprenticeship system, and many a good man has been turned out thereby.

The questions naturally come up, what is the difference in the two methods of obtaining an education, and what advantages does each possess? Just how can a fair lad in moderate circumstances acquire the art of plant growing in the best way and in the shortest time? Can any help be obtained by watching the methods practiced in other trades and professions? Can any advantage, however slight, accrue from seeing, that in other branches of labor, not so very remote, the methods of acquiring practical knowledge are gradually changing and that at any rate a certain amount of time is saved even if nothing more is gained.

It may be well to consider before attempting any further comparison, what are the requirements? What can be expected in the way of an education in gardening by a lad of 15 who wishes as soon as possible a situation which requires either an all-round knowledge of trees and shrubs, flowers and vegetables in common cultivation, or the special knowledge called for in growing some one or more of the classes of plants important in trade? There is no need to tell an audience like this that schooling in the ordinary sense alone can not make a gardener, either "all-round" or "special," some times a gardener, maybe born like a poet, but to most, experience is the

mother who teaches. How we can best utilize the experience of past generations of gardeners is part of education of the gardener of to-day. How can the store of learning of men who have been growing plants all their lives be gained? How can our lad of 15 acquire this information? How can he at the same time learn to observe the habits of plants, learn to reason, to see the cause and note the effect, and so, while improving his own power, maybe add something to the by no means too large fund of general information relating to plant growing?

First and foremost comes a practical knowledge of plants, not their names alone, not their habits only, but that also which is often lacking in practical men, an as intimate acquaintance with their structure as is possible. Here a comparison between the practice of medicine and surgery and the practice of gardening may not be inappropriate, notwithstanding the great difference in the importance and complexity of the two branches. To me it seems that if we could make use of the means of research and of imparting information employed by the medical profession a great step would be gained, not only in immediate results but also in the advancement of our art. The doctor is called upon when his patients are sick; the first duty of the gardener is to keep his plants in health. One cause of illness is undoubtedly the more or less unnatural methods of living which prevail in civilized countries. There is no doubt about the highly artificial manner in which plants are grown. Our plants collected from all quarters of the globe, growing under widely different conditions of soil, temperature and water supply, are forced by us to grow in that locality which suits our convenience. We do our best to imitate the natural surroundings, and that is gardening—keeping the plants in vigor and health often under adverse circumstances, a work not so very unlike that of the physician and surgeon. As in the education of the young doctor the anatomy of the body is first explained, so in the education of the young gardener I would begin with the structure of the plant. He should be given a thorough grounding in botany. He should be taught the different parts of the plant and their offices. He should study the relations of the higher plants to each other and should know something of the lower forms of vegetable life. He should be able from his knowledge of the relationship of plants to determine a name in a flora or manual and if possible, if his inclination runs in this direction, let him make an herbarium or collection of dried plants carefully named and labeled, such work gives methodical habits and assists the powers of observation. Inculcating habits of observation I consider of the first importance in any plan which may be proposed for our purpose.

There is no better study than chemistry to promote such habits.

You may think perhaps I am laying out too much work for our boy, but please do not misunderstand me. I do not want him to study botany to be a botanist, or chemistry to be a chemist, any more than that while he is at school he should study arithmetic and algebra to be a mathematician, or reading and writing in order to become a writer of books. Botany and chemistry bear the most intimate relation to agriculture and horticulture in all their forms, and I maintain that any knowledge of either of these subjects will be of the most material and direct help, while indirectly they will cultivate those powers of observation without which progress in our art is well nigh impossible.

It goes without saying that the better schooling a boy can have the better he will be fitted to begin his chosen calling. Something depends on the boy, one should not plan to "spend a thousand dollars on a hundred dollar boy," as has been said in another discussion on educational matters. It would be folly to say that a college education is in any way necessary to make a good gardener, but it would be still more foolish to say that any form of education is a hindrance.

Home training is an important factor in the make up of any boy and many of the matters I have touched upon may be impressed upon him by his family and friends; the knowledge of plants which the son of a plant grower is likely to obtain without effort will stand him in good stead when he begins his real work. When this time comes what is the lad to do? Two courses are open to him; he can hire himself out to some florist or nurseryman, or he can enter one of the schools which have lately been established for teaching agriculture and horticulture. It remains then to consider what advantages are to be gained by choosing one method or the other. The old apprenticeship system, in one form or another is certainly and for good reasons the favorite at present. We hear of few boys going to agricultural and horticultural colleges to get the practical knowledge of which I am speaking. The boy hires himself out at so much per month and presents himself as ready to do any work about the place; under almost all circumstances this work naturally at first is of the roughest description, or at any rate simple and without much variety. He runs the fires, attends to the bringing in and mixing the soils, washes the pots and keeps the premises neat and orderly. He gets besides some experience in propagation and in handling the more easily grown plants. Much depends upon the sort of establishment which he enters as to the range in subjects, much depends upon the master as to the chances which he has to make the most of his opportunities, more depends upon the boy as to his making the most of what is set before him. The important thing for the boy to obtain at this period is a thorough understanding of what is going on about him and reasonable chances to take part in all the various operations, if he can learn to grow roses and carnations in good shape and understands the various steps, so much is gained, not only in that particular line, but so much has been done towards helping him to grow other plants. The boy does not yet know perhaps just what line of work is best suited for him, he does not know whether it will be trees and shrubs, fruits, flowers or vegetables, any one or all, whether he will become an outdoor man or a green-

house man; it must be a part of his education to give him opportunities to make this choice intelligently. The important point to consider here is that no knowledge of any one class of plants will ever come amiss to the good gardener, to the man for whom there is "always room at the top." I insist, that in case the apprenticeship system is chosen, this always should be kept in mind, viz.: that in educating a gardener it is an all-round education which is best, that no one branch is enough, that it is best to get first an even imperfect acquaintance with a range of subjects and then make the specialty later. The boy or his parents must bear this constantly in mind. It is hardly possible to gain great proficiency in any one branch without having first had experience with large and different classes of plants. I know changing plans presents many difficulties, but these can be met and overcome by a boy who really strives to win his way. I should say a year or two at some private place at first, or the beginning might be made at a nursery, then one or two seasons at a sales place, choosing, in accordance with his inclinations, one where cut flowers and greenhouse plants or trees and shrubs were principally grown. A capable boy, one who took to the business, ought to be able at the end of five years to undertake the management of a small place for himself or another; it would however be still better for him to engage as under gardener and for another five years continue his studies under experienced direction.

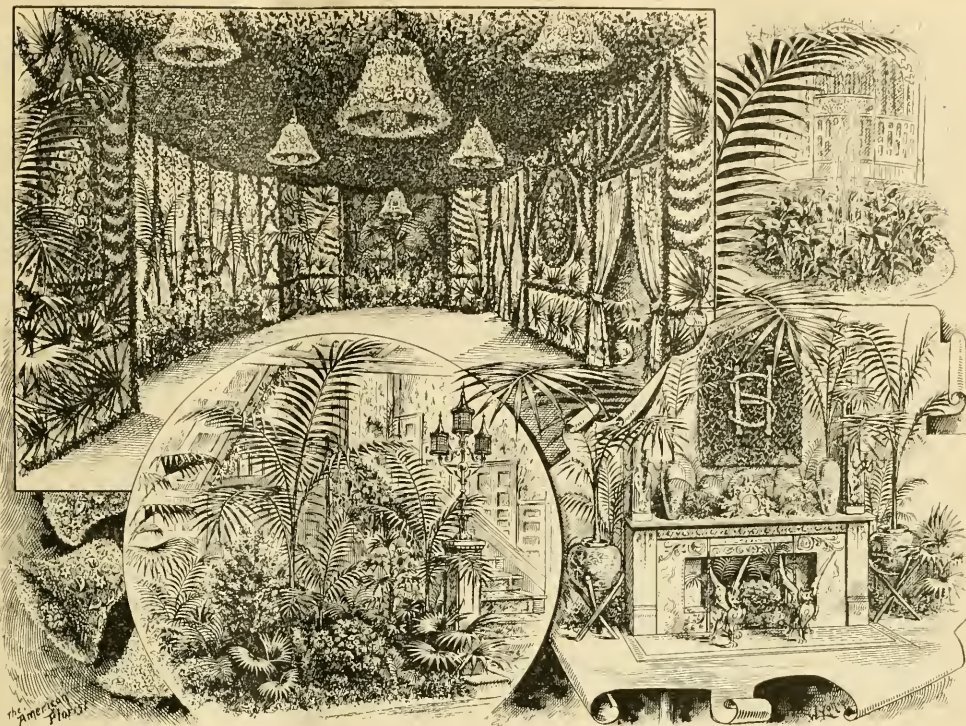
In other words to make the best use of the apprenticeship system at least five years must be spent without regard to wages; a boy could probably support himself in part and this would be a necessity in many cases, but wages should not be considered except as of secondary importance for at least that length of time, after which the young man should look for fair pay, but should never forget he is still getting "the experience which teaches."

Is there not some way by which a certain general information about plant growing can be obtained in less time? Can not the first five years of routine work be shortened? It seems so to me taking a fair specimen of boy, one neither extremely bright nor very dull. I should say that the same amount of preliminary training could be accomplished in two years, or at any rate three (and in certain cases even in one), and moreover, that this work could be done in a more satisfactory way. This would be by a proper use of the agricultural and horticultural schools and experiment stations which are established in various parts of the country. The element of time could I'm sure be very much abridged, but it would be at the cost of expense. Education must be paid for in some way, the boy must be supported during his period of study, and although he might not be compelled to pay much for his tuition, still he will not and ought not to expect to earn any considerable sum during this time. I am well aware that agricultural and horticultural schools as they now stand do not commend themselves to farmers and gardeners. This is apparent not only from the fact that they do not often send their sons, nor often advise young men to seek this form of education, but also it appears in the tone of the papers which represent the practical plant growers. No complaint is to be made, nor to my knowledge has been made by the schools for this state of affairs. The schools as well as the plant growers know very well that in some

ways they do not, are not able to come into competition with the present order of things. The schools with us are largely experimental, they are feeling their way, they are teaching themselves to find out and then impart the instruction which is required; but even as the schools are today it seems to me that in the earlier stages of the gardeners' studies they might be profitably employed. There is a large amount of simple work in gardening, it must however be understood and without knowing these elements no one can become a proficient. I refer not to the care of fires, pot washing and the like, but to preparing and mixing soils and understanding why what may be very good for out-of-door work is not right for the greenhouse, and why the care given to soils for growing plants under glass is not necessary in the open air. I mean work like propagation, either simple or more difficult, the principles of which can be learned in a short time if properly presented, here the advantages of a well organized school are very apparent; a boy hires out to a greenhouse man, he can learn only directly and with absolute practice to propagate a limited number of tender plants, mostly from cuttings, if it is a salesplace he can handle roses, carnations, violets and a few other plants, if it is a private place the list would be more extended, but is not likely to include, beyond the greenhouse and frame yard, much except vegetables where propagation would be required, he will know very little of trees and shrubs, fruits and herbaceous plants in this particular. As in propagation so in many other matters, the actual practice must be limited where any question of working for wages holds, while in an even fairly well equipped school all routine matters of this simple nature can be given with quite extended practice in detail.

It is time to say something about the other advantages which a school should be better able to give than any private or salesplace. Here courses in botany in all its branches, with special reference to the needs of plant growers, could be given. Chemistry can be studied not only for practice, but for its most intimate relation to practical work, the true value and use of manures, the composition of the different soils and the processes which go on in the complex relation of soil, air and moisture to plant growth. Johnson in "How Crops Feed," says in reference to cultivation in the open ground, "through the soil alone can we influence plant growth," a most important matter to the practical outdoor and to the greenhouse man who wishes to make every square inch of his costly structure give its best return in dollars and cents. Cryptogamic botany, a most interesting study, can hardly be understood without competent instruction; this bears directly upon the diseases of plants and every practical man knows we are getting pretty near the time when something must be done to check the ravages of growths so minute that it is difficult to detect the offender. Entomology is another subject of the greatest importance to the gardener who strives for the best. How can a lad working for his bread and butter expect to make headway in these studies where even the specialists are at fault? Instruction in surveying, a most useful study to the practical gardener, would form a part of such a course.

I say nothing of those advantages which such a school might offer in the way of instruction in farming and attendant subjects, nor of the highly important matter of the discipline and mental



WEDDING DECORATION FOR DESCRIPTION SEE PAGE 326, LAST ISSUE.

training which would result from the lad's intercourse with men trained to present their branches in a fit and proper way. What not to believe, or at any rate, what to be in doubt about is something which might well enter into the education of a man in affairs about which so little is known scientifically as about agriculture and horticulture at the present day. You will perhaps notice that I have said nothing about various studies often offered in agricultural colleges. It seems to me that it is the all-round nature of the studies in some of these schools which have put farmers and gardeners out of the habit of sending their sons to them, that they distrust the practicality of the special form of instruction which they require where so much is to be obtained.

It is far from my purpose to say a word against education in any form, but this problem confronts us, this state of affairs is beginning to be noticeable, that while abroad such schools exist and are attended by those who need this technical education and who on graduation devote themselves to rural affairs, here it is not the case; we have the schools, but while some farmers and gardeners are turned out, others, the majority perhaps, betake themselves to other pursuits, they are school teachers, doctors or ministers, they are not farmers and gardeners. It is not surprising under the circumstances that practical men write and talk against educating their children in schools which were established largely for their use. The fault is partly with the schools and

partly with the farmers and gardeners, the schools must be made more practical and plant growers must send their sons, a better understanding must be established, the schools must be encouraged and a fair trial given to a somewhat different method of teaching than has heretofore obtained in these matters. It may not be practical to establish such a school as I have sketched, but if such a school was established there would be no doubt about its practicality.

Gentlemen, I thank you for the honor of being asked to come before you and for the attention you have given me. There are two sides to almost every matter of importance, and although I have this evening tried to give you a fair statement of the possibilities in educating young men in our profession I have advocated that method which seems best to me. More might be said and better said on this most important matter, the country has not yet seen the days of its best gardening. You and your comrades in other cities have done wonderful work and as I understand have far outstripped the flower growers of the Old World in many ways, but this is not the case in all branches of the art. The days are yet to come when gardens and greenhouses are to be common through the country, these days are fast approaching and we may at any rate take our part in preparing for the gardening of the future by devising some scheme of education by which not only the art of gardening shall improve, but by which the rising generation of young gardeners shall profit.

Self Education.

There have been many men who have educated themselves, or at least partially, and the way they have done it is by careful, persistent digging at odd moments during the day and evening. Others can do as much if they have the proper amount of application. I do not advise any one to study to that extent which will interfere with their business or sleep.

J. H. H. has asked for some one to outline a course of study to cover from four to six years. No one person is competent to arrange such a course, but I propose to give a few suggestions in this line and you can take them for what they are worth.

In the study of botany, which is of the utmost importance to the trade, the first book to be thought of is Gray's "New Lessons and Manual of Botany," which is the standard, to be followed by Thome's "Structural Botany," at the same time "Henderson's Handbook of Plants," Fuller's "The Propagation of Plants," and "Origin of Our Cultivated Plants" can be read and certain parts of them studied. Common sense will tell you which parts.

In entomology Packard's "Guide to the Study of Insects" is a good book to at least read and have for reference, also a copy of "Insects Injurious to Vegetation" by any of the recognized authorities in the section of country to which you belong. Many of the State Agricultural Reports contain valuable articles

on these and other subjects of interest to persons in the trade.

There are hundreds of books on subjects relating to the trade which any one, young or old, can profitably read, but the list would only confuse "the young man with the interrogation point," so we will give no more, trusting that this will be enough to start with.

Do not get into a rut, as some men do, and laugh at books, for you will find that if you do not use your brains you will become more and more like a machine every day you live. Thoughts turned in the right direction are golden, but if they are allowed to run always in one rut they are worse than wasted, and remember that you are never too old to learn and that with application and perseverance old dogs can be taught new tricks.

ALFRED B. COPELAND.

Springfield, Mass.

Buying on the Co-operative Plan.

BY DAVID BEARNS.

[Read before the Florists' Club of Philadelphia.]

Can this club be of any benefit to its members by buying supplies on the co-operative plan? If this club could devise a practical plan of buying supplies for its members co-operatively, cheaper than they can individually, it would not only be a benefit to its members, but it would greatly benefit itself also if so managed as to give them a direct benefit—some good that they could feel at once, it would increase its own usefulness and make it important for each member to take a keener interest in its welfare.

Every one will admit that if you go to purchase a large quantity of anything you can get better terms than for a small amount, although keen competition has made dealers in other products besides our own cut the margin very fine between the price for a single article or by the hundred, still a committee of this club composed of some of its very shrewd members who have brought buying down to a fine art could undoubtedly do better if, for instance, they were to bargain for a thousand boxes of glass or a thousand tons of coal than any member could do who only wanted a small amount of either article.

Co-operation in this country has oftener been resorted to by the producer than the consumer, but in the old country (I mean by that, the part I have had personal knowledge of—England and Scotland), it is just the reverse; there, alike in large cities and small villages, you find co-operative stores where nearly all the necessities of life are sold, and the net profits whatever they may be divided among the consumers. The great civil service stores in London are a good example of the success of this way of doing business; started originally among the employees of the government for their own benefit, their customers now include all classes and their dealings run into the millions annually. I don't know on what system they are run, but co-operative stores there are conducted generally on what is called the Rochdale plan. The members subscribe a small sum each—say five pounds, which constitutes the capital of the concern; they elect officers, who put in a paid manager and whatever help is necessary to run the business, which is on a cash basis, both buying and selling; this they claim is the greatest secret of their success. When a purchase is made a check corresponding to the amount paid is given and a settlement is made at stated terms, quarterly or yearly as the case may be, when, after allowing

interest on the capital they divide the profits, which often amount to 10 and even as high as 20 per cent; and they don't charge higher than other stores, in fact they try to be a little under to induce non-members to purchase, who generally receive about one half as much as the members. Now I have not given you this plan with the idea of adopting it here, but just to set the members a-thinking of some feasible plan to benefit themselves and the club at the same time, and here I might say the surplus in the treasurer's hands might be made of more use to the members in this way than any other.

The difficulty, as it appears to me, is the amount of work which will be necessary. But if we could get a committee of these shrewd buyers willing to give a little time and labor for the good of the club, it could undoubtedly be managed, and not only supplies bought but we might look forward to the time when the club could undertake to work out new ideas for the common good of all, a work which is at present hard on the individual, especially when as soon as he has shown it is practical, every one appropriates it for his own use without giving him either honor or profit.

Just to show how this might work, one of our members whose brain is always busy, trying to devise some means of saving labor or expense, has at present the notion that oil would be a cheaper fuel than anything we can get around here. Now if we had a committee who would give attention to just such things as this and if the idea is practical they could work it out better than any single member, and if it were generally adopted they could buy the oil cheaper in such quantities as would be required, or find better ways of transporting it than exist at present; in fact they might be the means of bringing it in pipes and thus be a benefit to the city as well as the club and its members, helping to hasten the time when we can co-operate to help one another, and enjoy some of the benefits promised to those who are to live in the twenty-first century, instead of as at present trampling under foot our weaker brethren in the struggle for existence.

A Word for Detroit.

The notes from Detroit in the last number of the *FLORIST* seem to me to give a rather unfair impression of the state of the flower trade in that city. Miss Taplin's criticisms are usually just but I think that in this instance she has been a little too severe on the Detroiters.

There are no doubt phases of Detroit's flower trade that have not come to my notice, but as a wholesale shipper of cut flowers it has been my fortune to do a considerable business in that city and my experience has led me to look upon it as one of the most progressive of the western cities in taste.

The demand in Detroit for cut flowers of the best grade I believe to be fully equal to that in any city in the west of the same size. That the florists there are capable of turning out tasteful and artistic work would not be doubted by any one who visited their exhibition last year and observed the prize mantel and table decorations there shown, and conclusive evidence of the taste of the public was shown by the admiring throngs who crowded about those beautiful examples of the florists' art. Cheap work there was too, I admit, but where is the city where cheap work is not found and tawdry designs not demanded? It certainly

will not do for a representative of New York City to "throw the first stone" while the memory of that fearful and wonderful display on the stage at the Philadelphia Convention lasts.

WM. J. STEWART.

Hydrangea (Ramulus Coccinea).

This new and valuable acquisition to the list of hydrangeas must certainly create a sensation in the horticultural world as soon as its merits and value become known. It is without doubt the most valuable variety of all hydrangeas yet introduced and will certainly attract universal attention and admiration.

This variety is quite distinct from all others from the fact that the foliage stems and stock are of a dark plum color while the flowering branches are of a bright transparent red (hence the name coccinea). The trusses as well as the florets are larger and are of a much brighter rose color than those of the well known variety otaksa.

Being of a very deep color, it will be found especially valuable for early forcing and for Easter trade, as it does not lose its brightness to so great an extent through forcing as does the variety otaksa, which fact of itself makes it decidedly valuable. It is also a very free bloomer, producing fine large and magnificently formed trusses upon every shoot, as is shown in the accompanying cut of a plant one year old.

FRED'K SCHLEGEL.

Rochester, N. Y.

—*Hydrangea ramulus coccinea*, or, as it is quoted in this year's catalogue of Messrs. Ellwanger & Barry, of this city, "New Red-branched Hydrangea," I have been watching for the past few years with considerable interest, ever since the first flower of it came under my observation, which was of really immense proportion on a rather small plant. I first saw it at the place of the above-named gentlemen and also last year at Mr. F. Schlegel's. In such an extensive establishment as Messrs. E. & B.'s, generally little attention is given to the production of plants suitable for immediate sale while in flower, and as hydrangeas usually bloom in April or May, just in the very busy packing and planting season, perhaps all plants then under glass get no more care than the necessary waterings and probably less of that than really required, and everybody knows that hydrangeas, just before and while opening and developing their flowers, require considerable moisture to perfect good large heads. With all these drawbacks *ramulus coccinea* was very large and remarkably free blooming. My attempts to find out anything about its origin have not been successful up to date; probably some of our eastern florists could do better, for, if I am informed right, there is a red-branched hydrangea grown in the vicinity of New York, at least my brother stated it as a fact when I called his attention to the plant two years ago, but under what name it goes there I do not know for certain. Messrs. E. & B. also have another red-branched variety named *H. ramulus picta*, of which they do not think so much at present, but it may on further trial recommend itself; now it remains to be seen whether the eastern one is the same as ours, or the latter named, or still another.

I have now a few plants from the East and also a few of the Rochester plants and will see this summer in what respects they differ. Can not Mr. Falconer give us any information concerning this plant? All I could find out was that some years



HYDRANGEA RAMULUS COCCINEA

ago among an importation of new shrubs, etc., from Europe a hydrangea with the above name attached came in the possession of the firm and the shrubs and plants were planted out in their specimen or experimental grounds. Some time afterward Mr. W. C. Barry gave orders to pot a few plants of each and every variety of hydrangea (of which they had at the time a rather large collection, many of them of the japonica type), and to take them into the greenhouses to ascertain their respective value under glass. The result was, *ramulus coccinea* showed so many superior points over all others that the firm concluded to propagate it; still, as is their habit, they would not offer it until further trial. The plant differs from other varieties principally in the color of the wood and in the size of each individual floret as well as in the greater circumference and size of the flower heads. The color of the wood, before it becomes brown and hard, is a very bright purplish crimson, terminating, toward the flower stems, just under the heads, into a clear bright crimson, which adds greatly to the beauty of the flowers. What I have seen of the plants would warrant the assumption that almost every growth will perfect a flower head, even if the plant was not ripened off in the fall of the previous season, so freely are the flowers produced on all sizes of plants. It also appears that the color of the flower is of a much clearer pink and retains that color much longer under glass than does either *H. hortensis* or *H. otakasa*. In addition to these favorable points

may be mentioned the low branching habit and consequently dwarfer appearance of this variety. It certainly is, as seen here in R., as much of an improvement over *H. otakasa* as this latter is on the older *H. hortensis*, and in the opinion of some of our best men here, the difference is much greater in favor of the new red branched.

J. B. KELLER.

Society of Indiana Florists.

The Society of Indiana Florists had a very profitable and interesting meeting at the State House, Indianapolis, February 26 and 27.

The President of the society M. A. Hunt of Terre Haute, opened the meeting with a most interesting and admirable address. Space will not permit even an outline, suffice it to say however that our presiding officer took high ground on all questions pertaining to the elevation of our business.

Mr. J. D. Cox of Crawfordsville gave some most excellent reasons for organized action in a well prepared and thoroughly good paper. His reasons and argument for florists to organize was a convincing piece of logic, would that the members of our profession throughout the country could but read it. Wm. Berterman gave a most interesting account of the plants and plant life as seen on a recent trip to New Orleans and parts adjacent.

In the evening Mr. Pierre Van lan Deghem, of Purdue University gave an illustrated lecture or talk on the

fertilization of the orchidaceous family. The talk was replete with interesting and valuable points on the little understood methods of fertilization of this valuable race of plants. Mr. V. spent a number of his best years at the great horticultural establishment of Mr. Van Houtte at Ghent, Belgium, was recommended for his present position by Robert Craig of Philadelphia and right worthily does he fill it. E. G. Hill gave a talk on floriculture in Europe, as viewed in some of its commercial aspects. The question box was put to good use and evolved much that was of interest to a practical body of men such as were assembled.

The election of officers for the ensuing year resulted as follows: M. A. Hunt, Terre Haute, president; D. W. Cox, Crawfordsville, vice president, Mr. Huntington Indianapolis, treasurer; Wm. Berterman, secretary.

The committee to arrange for the next chrysanthemum show was appointed, and a most excellent list of premiums to be offered at that time, was agreed upon. The committee offer \$100 for the best undisseminated seedling chrysanthemum, five blooms to be shown on 14-in stems. This should bring out a good exhibit as it is considerably more than ever offered before in this country for a seedling.

On Wednesday night the society proceeded to the residence of Mr. Anthony Weigand where a most sumptuous repast was served to over fifty members. The generous hospitality so liberally dispensed by Mr. and Mrs. Weigand was supplied

mented by the graceful attention of the Misses Weigand. Everything was provided and done to render the evening a memorable one, and all went away with grateful hearts to Mr. and Mrs. Weigand.

The society has accomplished much good and has done valuable service in bringing the craft into a prominent place before the people of the Hoosier State. Its future usefulness, however, depends on the wisdom and judgment which shall prevail touching certain social questions which are uppermost. E. G. H.

Boston Notes.

Since the last report there has been a big tumble in prices of cut flowers and in the volume of business transacted. Just at present writing the weather is very cold and plenty of snow everywhere, so that the production is largely curtailed, but even under these circumstances there seems to be a complete stagnation. The only thing that never goes begging is a white carnation. These are all gobbled up as fast as they appear. All eyes are now turned toward Easter, and it is to be hoped that a big Easter trade will be developed to offset in part the present quietness.

The many friends of Mr. Frank Becker will be sorry to know that he has been seriously ill. Happily he is now convalescent and is considered to be out of danger. He is too good a man to lose.

James Conley has been cutting a large number of fine blooms from his new "Oakmont" rose. The color is very brilliant in this rose and holds well.

David Allan's dendrobiums are well worth seeing just now. As a dendrobium grower David has few equals, and his collection comprises many valuable species and very rare varieties.

On Saturday, March 1, Jackson Dawson exhibited at Horticultural Hall a box of *Cypripedium acule* in bloom, which was something remarkable. The box was only about 15 inches square and there were 47 perfect flowers. The color of the blooms was considerably deeper than is common with those that have grown outside naturally.

Mr. J. H. Cox and Mr. H. A. Bunyard, representing V. H. Hallowell, Son & Co., and The United States Nurseries respectively, have been canvassing Boston and vicinity thoroughly for several weeks. They are both indefatigable workers, and moreover have made themselves solid with the boys, and by the time they have got through with the Hub there will be nothing but gleanings left for anybody else.

Last spring while riding over a back-board road in the Maine Mountains I found a nice plant of *Cypripedium acule* alba in flower. As it was an unusually fine variety I dug it up with my jack-knife and kept it wrapped in a newspaper until my return home four or five days later. On exhibiting my prize to an experienced orchid grower he promptly informed me that I was a fool to expect a *Cypripedium acule* transplanted under such circumstances, and while in bloom, to live. Yet that same plant is now in flower at the Arboretum greenhouse and looks healthy enough. But they do say that with Dawson nothing is impossible.

The annual supper of the Gardeners' and Florists' Club will take place at the United States Hotel on the evening of April 10.

The subject for discussion at the March meeting of the club was "The Legal Rights and Liabilities of Florists Under the Laws of Massachusetts." A most entertaining and instructive talk was

given by Mr. R. T. Lombard, of Wayland, whose large experience as a lawyer before taking up the florist business enabled him to talk intelligently on this timely subject. He explained the laws applying to plants under various methods of culture, in open ground, in benches, beds or pots, showing the distinction between real estate and personal property, indicating what is attachable and what is not, what constitutes taxable property etc., and explained the laws governing the assignment of wages and the transfer of property of various kinds, giving special attention to those bearing on commission sales and sales at auction. The laws governing contracts of all sorts, including the relations between employer and employee, the limitations of co-partnerships and many other interesting points were covered by the speaker, who seemed to have the happy faculty of expressing himself in plain everyday English, avoiding technical terms and unintelligible legal phrases. The lecture was listened to with unusual attention and was certainly one of the best ever presented before the club.

A letter was read at this meeting from the family of the late Peter Henderson, thanking the club for resolutions of sympathy previously extended. W. J. S.

Washington.

The decorations at the dinner given Feb. 25 by Mr. and Mrs. Carnegie of Pittsburg, to the delegates and officers of the International Conference, with the President and his Cabinet were unusually elegant and elaborate.

The side walls were almost completely hidden from view by plaques of palmetto leaves, intertwined with wild smilax from the Carolinas. The north wall back of where President Harrison and Mr. Carnegie sat, was a gem from the florist's hands. The temporary mirror mantle, with the American flag falling in graceful folds over each side, was almost buried in banks of maiden hair fern, studded with clusters of hybrid roses and lilies, and beneath it were banked palms and blooming azaleas. In the corresponding corners were tall palms with specimen azaleas peeping from out the center, while the entire length of that side of the room was filled out with potted plants. The front of the corner clusters were handsome standing lamps with rare silk covers and lace edging. At the south end of the room the windows were dressed with rich curtains and lambrequins. Between them stood a secretary beautifully decked off with maiden hair ferns and azaleas. The corner by the end window was filled out with a bank of palms finished similar to those previously described. Opposite was the piano, where the musicians held forth, and which was dressed with palms and a standing lamp, while near the door was a dressing of smilax and palmetto leaves. The table was what is termed the round table, enlarged to accommodate forty-nine covers, and was 89 feet 8 inches in circumference. The top in floral design represented a mammoth four-leaf clover, a picture of beauty bringing forth expressions of the greatest admiration from those fortunate to see it in all its loveliness. The manner in which the design was brought out was so ingenious as to make the deception complete. In order to produce this effect the middle of the table had been removed to furnish the necessary space. In this space were 650 pots of ferns, all lowered some six inches below the table, resting on a temporary platform, leaving only

the luxuriant foliage visible. The stem of the clover leaf, made of lycopodium, ran from the center to the outer edge of the leaf on one side. The clover itself was composed entirely of maiden hair fern, rising about six inches above the level of the table, but not high enough to obstruct the view from any quarter. In the center of each leaflet were large mounds of Ulrich Brunner, Gabriel Luizet and Magna Charta roses. The leaflets were joined in the center of the table by a large cluster of Magna Charta roses. The base of these mounds of hybrid roses was encircled by lilies of the valley.

This four-leaf clover was bordered by rare and choice exotics representing in colors white and gold the fashionable ones of the season. Nestling between the leaves stood white and yellow tulips. Bordering on the tulips was a broad band of plush, fine in texture and finish, and giving the whole the appearance of a beautiful picture set in a rich gold frame. This was sprayed over with delicate fern fronds, causing it to resemble a superior embossed finish. At the outer edge of the plush the floral decorations were continued in a series of artistic garlands of ivy leaves, encircling the entire table. In the center of each garland was a cluster of large Ulrich Brunner roses and heather, and tapered to the edge with lilies of the valley. The damask surrounding the dishes was sprayed with fern leaves and heather, in deference to the host. Small & Sons of this city were the decorators. Z.

Siebrecht & Wadley's Orchid Show, New York.

An orchid show in the middle of February is considerable of an undertaking, for the weather may be peculiar and the temperature as near zero as 40°, but on this occasion the weather was propitious, the orchids numerous and lovely, and the patronage encouraging.

The orchids were arranged on side and end tables, and central ones so disposed as to set off the blossoms themselves to the best advantage, also to give to the hall the finest decorative effect, and at the same time afford abundant and easy room for visitors to pass hither and thither, and have a close inspection of all the flowers. Abundant use of ferns, asparagus, selaginellas, palms and cycads, gave a cheerful freshness to the show, and nesting to the cut flowers, and so free a use of greenery rendered unobjectionable the uncouth forms of many gorgeous orchid plants.

Most seasonable orchids were represented, and taking it all together there was a very large display of flowers, cattleyas, of course, prevailing, and of these Trianae was in the great majority, and next came *Percivaliana*. Mr. DeForest's large specimen of the white Triana that was here a year ago was again on exhibition and finer than ever. *Dendrobium* and *oncidium* were suspended here and there, *odontoglossum* graced many a nook, *ecologyes* were plentiful, *cymbidium* displayed their arching wreaths, *burlingtonias* diffused their delicious fragrance, *lycastes* held up their waxy heads, and gave a contrasting tinge of orange scarlet to the green, and the lovely *phalenopsis* nodded over the banks of other plants. The display of *cypripedium* was more confined to cut flowers than to plants, and consisted of several of the newer forms. But there was less variety than in previous years.

While the great majority of the orchids present were furnished directly from the Rosehill Nurseries, several private gar-



EUCHARIS AMAZONICA

dens and commercial establishments contributed freely to the exhibition. Each of these extra exhibits was arranged on a table by itself and full credit given. George Savage sent a generous collection of cut flowers from Mr. Kimball's greenhouses at Rochester. Mr. Everman sent from Easton, Pa., and Mrs. F. Goodrich from New York. Mr. F. Man, Weehawken, N. J., Mr. DeForest, Summit, N. J., and Mr. I. Posterman, Newtown, L. I., were the chief contributors in the florist class.

Of course, in so great an undertaking as is an exhibition of this size, it cannot reasonably be expected that so very many orchid flowers can be furnished at one time by the Roschill Nurseries, so a good many had to be bought from private parties, in which instance no public credit was given.

A bank of Empress of India amaryllises in gorgeous bloom was a gay attraction. These long neglected flowers are beginning to get a hold upon fashionable people.

A roomy glass case in a corner and filled with sonorillas, bertolonias and such like companionable gems drew many admiring eyes.

The large decorated archways were

covered over with evergreen wild smilax from the South, and Japanese honeysuckle vines, which this season have continued evergreen.

W. F.

Eucharis Amazonica.

A plant so generally popular—and deservedly so—as *Eucharis amazonica*, receives always great attention from the gardener, and any methods of culture which may have resulted in an abundance of large blossoms and healthy foliage are eagerly sought after.

The plant figured is, as will be seen, an example of first-class cultivation, and an object of beauty which any gardener might point to with pardonable pride. We will let our correspondent, Mr. W. Dean, of Solihull, Birmingham, who kindly sent the photograph in November last year, describe this plant and its culture in his own words:

"One of the finest specimens of this plant we have yet seen has recently flowered at The Henburys, Mosley, Birmingham, the residence of G. F. Lyndon, Esq. *Eucharis* are well grown here, one plant especially deserving notice, because of its size, its perfect health, and color and size of the foliage, and abundance of fine

flowers. This plant is in an 18-inch pot, and about six years old, and has had four repottings in the last four years. It is 4½ feet high, 5 feet through, and had 36 flower stems, with quite 220 blooms on them, the flowers large, and the foliage in the best of health. Mr. John Black, the gardener, uses a soil composed of good loam, a little leaf soil, some broken sandstone, and a few half-inch bones, with plenty (quite six inches) of drainage to allow water to escape freely. He finds that the roots adhere to the sandstone, and evidently derive benefit therefrom. The plants are kept through the winter and spring in a temperature of from 60° to 65°, but when blooming they are removed to a cooler house, but if kept too long, then the foliage suffers and decays. Watering is an essential point with Mr. Black. He uses very little directly on the soil, and then only in hot weather, and manure-water, and resorts to frequent syringings into the foliage, always with clean manure-water, using this freely in the growing season, but he never allows the plants to dry off. Too much soil in the pots and too much water at the roots Mr. Black holds to be injurious, and he trusts more to the copious syringings of the plant with weak manure-water. Some diseased bulbs of *encharis* sent to the Henburys some time since were washed and placed in a pan of sand with sphagnum at the bottom, where they grew freely, and were soon restored to health.

—*Gardeners' Chronicle*.

Cost of Production.

There has been considerable agitation of this question in almost every issue of the *FLORIST* and very few of the estimates seem to be anywhere near alike. Now we propose to give our method of finding the result, without which there would be likely to be some misunderstanding.

Pansies we grow in what is called the raised bed method, viz.: without frames. From an ounce of seed we obtained 2,120 plants, or leaving 120 for poor plants, 2,000, and the following is what it cost us to produce them: 1 ounce seed \$5; fertilizer \$1.50; labor \$12; use of land, water and interest for eight months at 6%, \$1.50. Total, \$19.

Therefore it cost us almost one cent each for our plants. Adding the cost of baskets for marketing, \$5.85, the whole cost is \$24.85, or about 1¼ cents per plant.

Asters we start in frames and market in flats. Using the same method of obtaining the cost, the result is \$15 for 2,000 plants, or ¾ of a cent apiece.

Tomatoes, cabbage and celery are all started the same as asters, and they cost us to produce, for tomatoes \$5 per 1000, or ½ cent apiece; for cabbage \$3 per 1000, and celery \$2.50 per 1000. We do not winter over cabbage, if we did there would be added the cost of wintering over. You may perhaps think that we have figured pretty fine, but in these times of sharp competition and rather uncertain markets it has to be done, and the cost has to be forced to the lowest possible limit.

For greenhouse or bedding plants the same methods of figuring can be used, adding the cost of fuel, pots, potting soil, etc. In carrying on this business you will find that you will need to use your brains as much, if not more, than your hands, and that the man who uses his brains the most, other things being equal, will be the one that will be the most successful.

ALFRED B. COPELAND,
Springfield, Mass.



Langwater Gardens.

Among the happy memories of the Executive Committee of the S. A. F. when in Boston in January was a visit to Langwater Gardens, the country home of Mr. F. L. Ames, at North Easton. This is a delightful and busy New England village on the Old Colony Railroad and about 22 miles from Boston.

Immediately on leaving the station we enter the Ames' domain and pass by the residence of ex-Governor Oliver Ames, and a quarter of a mile farther on cross the Langwater lake, an islanded and highly ornamented stretch of water, into the park-like gardens of Mr. F. L. Ames, who is the cousin of the ex-governor. And here we were met by Mr. William Robinson, Mr. Ames' vigorous and enthusiastic gardener who, as our time was limited, conducted us directly to the greenhouses.

This is an immense establishment gotten up in the most substantial and serviceable manner, and each house had been designed and built specially and in the most approved manner for the particular kind of plants to be grown in it, and all of the greenhouses except some small pits and a conservatory are in one block.

Prior to three years ago hot water alone was used for heating the greenhouses, but then some new greenhouses were built and steam heating introduced, and Mr. Robinson speaks boldly in favor of steam. And he completely dispels the common idea that the heat from steam pipes is injurious to greenhouse plants requiring a cool temperature and moist atmosphere, for odontoglossums and masdevallias are extreme cases in this direction and here they are growing in hundreds in steam heated houses, and with the luxuriance of fattened weeds.

The orchids are now the great glory of these gardens, and the collection is the choicest in America. Every plant is a specimen, and many of them are of massive proportions. They were then in gorgeous splendor. The display of cattleyas was splendid, some flowers were eight inches and many seven inches across, of full and perfect form, glistening substance and delicate and richly tinted hues. The *lælias* were also in floral perfection. And particularly noticeable among the *Lælia anceps* was the absence of the commoner types and the prevailing abundance of the finer varieties as *Dawsoni*, *Williamsii*, *alba* and *Shroederiana*. *Cypripediums*, *oncidiiums*, *dendrobiums*, *phalenopsis*, and many other genera displayed their lovely flowers and there was an air of luxuriance, cleanliness and profusion about all of the plants that was very gratifying.

The collection includes about 8,000 plants in 1,300 species and positive varieties. Of course varieties might be greatly extended, for instance, among their 200 plants of *Cattleya Trianae* at least 50 distinct varieties might be defined, but such multiplicity is discouraged and no variety not recognized by the Royal Hort. Society of London or other high authority is acknowledged here as distinct. And I have no doubt whatever that Mr. Ames' cattleya house contains the most valuable

collection of plants of any kind in any greenhouse in America. This house is 100 feet long by 20 feet wide, and at a moderate estimate contains \$100,000 worth of plants.

In addition to this cattleya house there is one odontoglossum house 100 feet long by 9 feet wide, and another 90 feet long by 9 feet wide; an East Indian house 35 feet long by 18 feet wide, and a Mexican house also 35 feet long by 18 feet wide.

But this is not all. Among the other greenhouses the grotto is particularly attractive. It is a rustic fernery under glass, 40 feet wide each way, and laid out in a rocky-appearing natural style, with steep and rugged, fern-clad declivities, embouldered surfaces and irregular stepping stone paths. A would-be mountain stream dashes down over the rocky precipice into a little lake below, bespattering in its noisy course the mosses and the filmy ferns that find congenial quarters in such a drenching home. And the whole grotto is verdant with creeping and depending ferns and mosses that spread over and among the rocks and drape the cliffs. And high over all is spread the tree fern's broad expanded head.

From a roomy conservatory devoted to seasonal plants in bloom we passed into the tropical fine-foliage plant house, a building 70 feet long by 30 feet wide and here beheld some extremely fine examples of cultural skill. Just think of *Anthurium Veitchii* 8 feet in diameter with dozens of leaves, the perpendicular blades of many of which were five feet long. And *Nepenthes* in tropical perfection and profusion were suspended from the roof. Prominent among them were *Crissis albo-marginata*, many of the finer hybrids and species, and the famous *Rajah* in splendid condition. The white *Ipomæa Thomsoni* was in bloom and running along under the roof and over the pathway. And ferns seemed to luxuriate in this building. *Lomaria gibba* platyptera had a head as broad and full as a large *Cycas circinalis*; *Microlepia hirta cristata* had tasselled fronds over five feet long, and *Gymnogramme schizophylla* in a pot raised above the bench displayed the marvelous beauty of its exquisitely cut fronds in a solid hemispherical specimen four feet across.

In so hurried a visit I was unable to do more than note a few of the more striking orchids, and to these I must now restrict my remarks. Before sending them to you, however, I submitted the descriptive matter to Mr. Robinson, who kindly revised and corrected it.

CYPRIPIEDUM MASTERSIANUM in an 8-inch pot was throwing up a flower stem. A little plant to be sure, but small as it is, a few weeks ago a New Jersey firm offered \$500 for it. It is an extremely rare species from the East Indian Islands. The foliage is deep green tessellated with pale green and the flowers are large and distinct from any others of its class.

CYPRIPIEDUM LEEANUM SUPERBUM.—A handsome plant in a 12-inch pan was bearing eight flowers. It is a superior form of the fine hybrid obtained from C. *Spicerianum* X C. *insigne* Maulei and which was the first hybrid got from *Spicerianum*.

CYPRIPIEDUM SITENS.—A specimen in a 12-inch pan was bearing six flowers. It is a hybrid between C. *villosum* and C. *insigne* Maulei, and in it the beauties of both parents are nicely blended; its dorsal sepal, in the way of C. *i. Maulei* but larger and whiter, is conspicuously bright.

CYPRIPIEDUM SCHRODERÆ was in good

bloom. It is one of Seden's hybrids between C. *caudatum* and C. *Sedeni*, and has branching stems and large, showy reddish flowers.

CYPRIPIEDUM MORGANÆ was represented by a splendid specimen in a 14-inch pan. It was not then in bloom, but I had seen this same plant in flower in summer, a year ago. It is a Veitchian hybrid raised by Seden between C. *superbiens* and C. *Stonci*, and named by them in compliment to the late Mrs. Morgan, of Madison Square, New York, who at that time had one of the finest collections of orchids in this country. Her orchids were said to have cost her \$200,000; after her decease, nearly five years ago, they were sold at auction in New York for little more than a tenth of this amount. In 1881 Veitch presented one of these *cypripediums* to Mrs. Morgan; it was then valued at \$2,000; and at the auction sale of her plants Veitch bought it back again for \$750. Mr. Ames bought his plant from Veitch in '85, paying \$300 for one "lead." There is a figure of this fine orchid in the *FLORIST*, Vol. II, page 163.

CYPRIPIEDUM AMESIANUM.—A vigorous and handsome plant was bearing five flowers. This is a new orchid, a hybrid raised in England between C. *villosum* and C. *venustum* and named in compliment to Mr. Ames. But what a pity! So generous and enthusiastic an orchidist deserves a far richer compliment than this ordinary-appearing garden hybrid. Some authorities class it as a variety of C. *Measuresianum*; both are children of the same parents.

CYPRIPIEDUM LEUCORRHODUM.—An excellent plant in a 12-inch pan. It is a Veitchian hybrid between C. *longifolium* Hartwegi X C. *Schlimi* albiflorum, and is the most beautiful hybrid of the *Selenipedium* group of this genus.

CYPRIPIEDUM HYEANUM was represented by a little plant in a 3-inch pot, and we were informed that it is worth 75 guineas (over \$375) a "lead." It was introduced by Hugh Low of London, from Borneo whence it was imported among a lot of C. *Lawrenceanum*, and in the summer of '88 only two small plants of it were in cultivation in Europe. It is called the albino form of C. *Lawrenceanum*.

CYPRIPIEDUM ORPHANUM is a little orphan in the hybrid family, rare and valuable, and here represented by a very thrifty specimen. Mr. R. writes: "So named because of its doubtful parentage. A Veitchian hybrid between *barbatum* or allied species and *Durii*."

CYPRIPIEDUM CHINTINI, PHILBRICK'S VAR.—This is one of the finest forms of C. *insigne*. It was bearing four flowers. The broad white margin extends half way down the upper sepal, and the spots on the white area are of a beautiful mauve purple. The pouch is yellowish brown and very broad.

CYPRIPIEDUM YEXILIARIUM SUPERBUM had four flowers. The plain vexillarium was the first hybrid where the modest C. *Fairieanum* was the parent, it was raised by Dominy and first flowered in 1870. The superb variety has larger and more richly colored flowers than those of the typical plant.

CYPRIPIEDUM HARRISIANUM SUPERBUM was seen in a beautiful plant in a 14-inch pan. Than those of the type the flowers of this variety are larger and have a more glossy surface and all the segments are more richly colored.

CYPRIPIEDUM ARTHURIANUM.—This is Mr. Robinson's pet of the genus. He

writes: "How well do I remember seeing this modest yet aristocratic looking hybrid in bloom in 1873 at Veitch's, London. It was raised, the second lot of the Faircannum seedlings, and only one plant was the result. Mr. Hugh Low had to come from London to our establishment here to see the first bloom of *Arthurianum* that he had ever seen; this was five years ago, and it was the first flower of the kind produced in America. I see some are claiming another variety, namely *pallidum*, but up to the present time all plants have been raised from the one seedling."

CATTLEYA BRYMERIANA from Brazil and supposed to be a natural hybrid between *C. superba* and *C. Eldorado*, though not in flower, attracted our attention because of its rarity and value. One of these plants cost \$625.

CATTLEYA TRIANÆ DAYANA was in superb bloom. The flowers were over 7 inches across and the petals $2\frac{1}{2}$ inches wide; sepals and petals bright lilac rose, lip margined with rose and blotched with rich magenta-purple and marked with orange in the throat. The prettiest of the *Trianæ*s.

CATTLEYA TRIANÆ VAR. LEEANA.—This is the largest flowered of the *Trianæ* group; its blossoms were $8\frac{1}{2}$ inches across. Sepals and petals delicate rosy mauve, anterior lobe of lip crimson-purple and extending into the throat and almost obliterating the characteristic yellow disc. This particular plant has four "leads" and is growing in a 10-inch pot. It was bought in at auction in London a couple of years ago for 180 guineas (over \$900).

CATTLEYA WARCEWICZII ALBA, or the white *C. gigas* as we generally say. This is the plant that Mr. Ames bought of Siebrecht & Wadley, New York, a couple of years ago for \$1,000, and which was so much written about at the time. It is the only plant of the kind known, and it is a fine healthy specimen carrying seven active leads. Sepals and petals are pure white and large, and the lip is slightly tinged with pale lilac, and the disc pale yellow.

CATTLEYA SKINNERII ALBA in a 10-inch basket was said to be worth \$375. It was not in bloom. And near by were some enormous masses of the true *Skinneri*; one densely filled raft basket that we measured was 24 inches wide by 45 inches long; it was the largest mass of the kind I had ever before seen.

CATTLEYA CHOCHOENSIS.—Several lovely forms of this fragrant, campanulate species were beautifully gay.

CATTLEYA PERCIVALIANA GRANDIFLORA.—A splendid specimen in a 16-inch pot had 13 extremely large wide open perfect flowers with intense rich crimson-blotched, yellow marked lip.

CATTLEYA TRIOPHTHALMA, a Veitchian hybrid between *C. superba* X *Lælia Exoniensis*, was growing in a 6-inch pot, it had eight bulbs and two spikes bearing four and five flowers respectively. The blossoms are about 5 inches across. "Sepals and petals pale rosy purple; side lobes of lip white, streaked obliquely with purple, middle lobe rich amethyst purple with a narrow white margin and yellow disc crossed transversely by a purple streak." It is a beautiful and distinct hybrid, and only two plants of it were raised, and of these one is now in the collection of Baron Schroder in England, and the other is the specimen referred to above in Mr. Ames' collection.

CATTLEYA REINECKIANA.—This was not

in bloom at the time of our visit but a large specimen in a 12-inch basket demands a word for it is worth \$1,000. It is a splendid orchid, probably a form of *C. Mossiae*, and is said to have originated in the garden of Mr. J. Sichel, Cheshire, England. Mr. Robinson told us the above plant bears flowers over 8 inches across; sepals and petals pure white; lip broad and frilled, violet purple with yellow throat veined with purple. In the market it is worth \$150 a "lead." Among the *Mossiae* group we also noticed a splendid mass of *Wagneri* filling a 20-inch square basket, *C. M. alba* and *M. aurea*, *afantiaca*, *Dodsoni*, *Arnoldiana* and *Massangana*. This is a unique variety and worth \$375 a lead; it is one of the deepest colored *Mossiae*s and the sepals and petals are marbled.

LÆLIA FLAMMEA.—Our attention was directed to a little plant of this costly gem; it had eight pseudo-bulbs and two "leads," and we were informed that it was worth about \$500 a break. It is a garden hybrid between *C. cinnabarina* and *L. Pitcheriana*, and Mr. R. says it is "the most striking and distinct hybrid *lælia* yet raised as regards the color of its flowers and which is unique even among orchids."

LÆLIA BELLA, of this we also saw a very fine plant. It is a rare and valuable Veitchian hybrid obtained from *L. purpurata* X *Cattleya labiata*. Mr. R. describes the flowers: "Sepals pale rose purple suffused with white, petals undulated and more deeply colored, lobes of lip amethyst purple with deep veins externally, intermediate lobe rich purple. A grand hybrid."

LÆLIA ANCEPS VARS.—These were in gorgeous array. But a noticeable thing about them was the conspicuous fewness of the ordinary typical form and the abundance of the superior varieties. The pure white—*anceps alba*—shows the faintest touch of greenish yellow in the throat; *Dawsoni* has larger sepals and petals also pure white, and colored lip; *Sanderiana*, just like *Dawsoni* in color but reduced in form and size; *Williamsii*, large flowered, all the segments white except the usual yellow disc and radiating purple lines on the inner side of lobes; in *Percivaliana* the sepals and petals are pale rose-purple suffused with white, and in *Protherocana*, *Winniana* and *Scottiana* we have the darkest colored flowers of *anceps*, and all superb. In *Lælia anceps Amesiana* we have the same perfect form of blossom that we find in *Dawsoni*, but distinguished by a deep blotch of crimson purple on the petals. There are only three plants of it known and they are valued at \$375 a "lead."

ZYGOCOLAX VEITCHII is the most unique plant in the collection, for it is the only plant of the kind in the world. It is one of Seden's bi-generic hybrids, its parents being *Zygopetalum crinitum* X *Colax jugosus*. It is represented by a thrifty plant in an 8-inch pot and which is throwing four flower spikes. The plant itself looks like a very strong growing form of *Colax jugosus*, and the flowers have an appearance intermediate between those of the parents.

SOPHRO-CATTLEYA BATEMANNIANA VAR. ROSEA.—Passing through the cattleya house we came upon this priceless little gem. It is another of Seden's bi-generic hybrid orchids, and without doubt the most remarkable hybrid orchid ever raised. It was obtained from *Sophrontes grandiflora* X *Cattleya intermedia*. The seed from which it was raised was sown in June 1881, and from it several

seedlings were secured, and the first flower expanded in August 1886. In the very few plants that have bloomed since then there is a slight variation of color in the flowers, the scarlet of the *sophrontes* being more apparent in some than in others. In general "the flowers are three inches across; sepals broadly lanceolate; petals broader, ovate, oblong; both sepals and petals bright rose color toned with scarlet; lip very distinctly 3-lobed and on the inner side cream white bordered with amethyst-purple." This *rosea* variety is the jewel of the precious family.

VANDA AMESIANA.—Some fine specimens were in full bloom in the cattleya house. It is a new species recently introduced from the East Indian Islands by Low, of London, and named in compliment to Mr. Ames. It is a moderately short growing plant with thick narrow leaves, and judging by its behavior here and the accounts we have of it from European gardens, it must be a most copious blooming species; these plants were bearing many long stiff spikes of very fragrant white blossoms with a rosy-tinted lip.

DENDROBIUM BROOMFIELDII.—An Australian species bearing very beautiful and richly colored flowers. It is suggestive of an intermediate form between *D. bigibbum* and *D. Phalenopsis*.

DENDROBIUM EUOSMUM LEUCOPTERUM.—We noticed a thrifty specimen of five pseudo-bulbs of this extremely rare and valuable plant. It is a hybrid raised by Seden between *D. endocharis* and *D. nobile*. And out of the same seed pod were raised two other hybrids, namely, *D. euosmum* and *D. e. var. roseum*. It was awarded a first class certificate by the Royal Hort. Society of London April 9, 1889.

DENDROBIUM LEECHANUM suspended from the roof of the cattleya house (where it was brought while in bloom) was flowering profusely. It is a handsome hybrid raised in England between *D. aureum* and *D. nobile*; the flowers were white, tipped with rich deep rose-purple.

CALANTHE PORPHYREA was in good bloom. It is a winter-blooming orchid bearing brilliant, rich purple flowers. A garden hybrid between *Limnæodes labrosa* and the red-eyed *Calanthe vestita*.

LYCASTE PLANA VAR. MEASURESIANA showed a decided improvement over the typical form. It is a desirable and free winter-blooming orchid; its flowers are large, showy, white and freely colored with carmine markings.

SACCOLABIUM HEATHII is the white flowered form of *S. Blumei*, and extremely rare and valuable, for there are only two plants of it known in cultivation and Mr. Ames has one of them, a fine half specimen.

ONCIDIUM SPLENDIDUM, a vigorous and handsome species from Central America, was in fine bloom. Its flowers are large, sepals and petals greenish yellow barred with brown, and the lip very large and of a clear yellow color.

ONCIDIUM OBRIZATUM was a sheaf of flower spikes. This, although neither a new nor rare species, is one of the most profuse blooming and delightfully fragrant of all orchids.

ODONTOGLOSSUM ELEGANS was showing a strong flower spike. It is a supposed natural hybrid between *O. cirrhosum* and *O. cristatum*; its flowers are yellowish white marked with dark chocolate spots and blotches.

CYMBIDIUM EUBURNÆUM.—A massive plant in an 18-inch pot was bearing about 60 flower spikes. The large ivory white flowers rising above the deep green grace-

ful foliage had a fine effect. This specimen is worth about \$300.

CELOGYNE CRISTATA VARS.—These were in the heyday of their glory. There was a splendid specimen of *C. cristata alba* with about thirty "leads." Other forms of *cristata* comprise *Leoniana*, *maxima* and the *Chatsworth* variety. Among other species of *celogyne* we noticed the precious *C. Dayana*, a handsome plant with eight "leads," and I believe the best specimen of its kind in cultivation. Six years ago it was priced at \$100 a "lead," and now this vigorous specimen must be worth about \$500. Other species included *C. Sanderiana*, *Fostermannii*, *Cunningii*, *pandurata*, *Schilleriana*, etc.

EPIDENDRUM O'BRIENIANUM.—Although this orchid was not in bloom, on account of its rarity and fame we were much pleased to look upon a vigorous plant of it. It is a garden hybrid obtained by Seden from *E. vectum* X *E. radicans*, and is the first seedling *epidendrum* ever raised artificially. It was awarded a first class certificate by the Royal Hort. Society, London, May 22, 1888, and a Certificate of Merit by the Royal Botanic Society, London, June 20 of the same year.

EPIDENDRUM VECTUM was in bloom, it always is. It has tall leafy stems at the ends of which it bears many-flowered racemes of deep magenta-purple flowers. In the same way, but finer, is *E. radicans*; it has bright scarlet flowers with orange marking on the lip. Other fine species are *E. cinnabarinum* with terminal corymbose cymes of scarlet flowers and *E. xanthinum* with yellow blossoms. They deserve to be grown and are of easy culture standing shoulder to shoulder, but well up to the light in an airy house with plenty of moisture.

SOIRALIA XANTHOLEUCA.—We noticed a most luxuriant specimen in an 18-inch pot, no doubt the finest plant in cultivation, and worth every penny of \$800. It has yellow flowers with a white throat, and *S. leucoxantha*, a new and rare species, has white flowers with yellow throat. And we also came upon *S. Kienastiana*, the white-flowering *marantha*, and an extremely rare and valuable sort. Mr. Ames' plant of it has about nine "leads;" he bought it when it was about only half as large as it now is for \$250.

NAMING a desirable new species or variety of plant in honor of some person is a pretty compliment to pay to any one, and the more beautiful and valuable the plant the handsomer the compliment. And this is a frequent occurrence as regards roses, *chrysanthemums* and florist's flowers where the plants have little more value than a dollar each; but in the case of orchids where the individual is worth maybe \$500 or \$1,000, or when it comes to a unique plant, when the specimen is priceless, what a splendid compliment it is. And Mr. Ames has been more honored in this way than has been any other American. Among the most important orchids named in compliment to him are the following:

PHALANOPSIS FREDERICK L. AMES.—A *Veitchian* hybrid obtained from *P. intermedia* Portei X *P. amabilis*. It partakes largely after *P. intermedia* Portei, but is entirely distinct. Only one plant in existence and it is in Mr. Ames' collection, and priceless.

LÆLIA AMESIANA.—One of *Veitch's* hybrids, and too one of the most beautiful they have yet obtained. Its parents are *Lælia crispata* X *Cattleya maxima*. Mr. Ames has two fine plants which, probably, are worth \$1,000.

ODONTOGLOSSUM ROSSI AMESIANA.—A very distinct variety introduced by Williams. Than those of the type its flowers are larger in all their parts, and the sepals extend over half the petals and are very highly colored on the margin.

VANDA AMESIANA.—Introduced by Low and no doubt one of the finest and most fragrant and copious of winter-blooming orchids.

LÆLIA ANCEPT AMESIANA.—One of Sanders' introductions. Worth \$350 a lead. Imagine a large perfect flower of *L. a. Dawsonii* and then imagine a large crimson-purple blotch on each petal and a deep crimson lip, and you will have a fair idea of this splendid orchid.

CATTLEYA HARDYANA AMESIANA.—An introduction of Sanders'. *Cattleya Hardyana* is a supposed natural hybrid between *C. Dowiana* X *C. Warszewiczii* and a very scarce orchid in cultivation, but within the last 18 months several have turned up among importations of *C. Dowiana*. About two years ago Mr. Hardy, of England, and who was the first to flower it, offered his plant with two leads for sale for 450 guineas (over \$2,250), but I never heard of any purchaser. Now one can get a plant for 50 guineas. *C. Hardyana Amesiana* is the only plant of the variety, hence priceless.

WM. FALCONER.

A Double Cypripedium.

It happens very often that owing to various conditions, orchids, and especially cypripediums, will produce monstrous flowers, some having two lips, or two or three additional petals and sepals, or otherwise mal-formed; but I have before me the first instance of an orchid flower becoming really double. The plant in question is *Cypripedium Boxallii*, with three flowers on the plant. They have their normal form, size and everything with the exception that the stigma and the pollen masses have changed into numbers of petals and sepals, in the regular way as we see single roses, pinks, or anything else turning double. The same plant had the double flowers last year, and it may be interesting to watch whether year by year this plant will add more and more petals and sepals until we have as double a cypripedium as there is a double begonia or double dahlia. Unfortunately it takes so long to raise cypripediums from seed so as to experiment, and furthering this process by this means would take from four to ten years. I must admit that while the flower is double, the ordinary single forms are far prettier, unless being such an unusual novelty we are not used to it yet.

Short Hills, N. J. W. A. MANDA.

Kalanchoe Carneae.

This was a *Veitchian* novelty last year, and it occupies again, this season, a conspicuous place among novelties. It was figured and referred to in the *FLORIST* March 1st last year. Since that time however it has been grown and flowered abundantly throughout the country, and, in my opinion it is a failure. I don't believe it has come to stay among florists' flowers, although it will hold a place in private and botanical gardens. It is easily raised from seed, of the easiest possible cultivation, and it blooms copiously the first year from seed. Planted out in summer and lifted and potted in fall, in any kind of common soil, and given carnation or rose-house temperature it gets along admirably. The foliage is large, succulent and coarse and there is nothing

elegant about the get-up of the plant; the flowers are a delicate pink but far from pleasing or striking in color, and before all are full open some begin to wither off; but its great redeeming feature is its sweet perfume. I am very well aware that opinions differ regarding this plant: Wm. Robinson at North Easton, Mass., showed it to me the other day, and exclaimed, "Isn't that a grand thing?" Edwin Lonsdale, of Philadelphia, on the other hand, is disappointed with it. I send you a photograph of one of my plants in bloom, and which was raised from seed last spring, planted out in summer, lifted and potted in September, and blossomed in the carnation house in November and December.

WM. FALCONER.

[The photo showed a plant bearing some fifteen heads of bloom and a decidedly better specimen than the one figured last year.—Ed.]

Nomenclature.

S. A. F. Committee on Nomenclature.

JAMES D. RAYNOLDS, Riverside, Ill., Chairman.

Roses:

ROBERT CRAIG, 49th & Market Sts., Phila., Pa.
EDWIN LONSDALE, Chestnut Hill, Phila., Pa.
ERNEST ASSMUS, West Hoboken, N. J.

Carnations:

A. E. WHITTLE, Albany, N. Y.
JOHN THORPE, Pearl River, N. Y.
WM. FALCONER, Glen Cove, N. Y.

Palms, Ferns, and Glen Decorative Plants:

CHAS. D. BALL, Holmesburgh, Phila., Pa.
JOHN BURTON, Chestnut Hill, Phila., Pa.
W. R. SMITH, Botanic Garden, Washington, D. C.

Chrysanthemums:

JOHN THORPE, Pearl River, N. Y.
WM. FALCONER, Glen Cove, N. Y.
J. M. KELLER, Bay Ridge, N. Y.

Bedding Plants:

G. L. GRANT, 54 La Salle St., Chicago, Ill.
ROBERT CRAIG, 49th & Market Sts., Phila., Pa.
J. M. KELLER, Bay Ridge, N. Y.
A. E. WHITTLE, Albany, N. Y.

Orchids:

DAVID ALLAN, Mt. Auburn, Mass.
BENJ. GREY, Malden, Mass.
WM. FALCONER, Glen Cove, N. Y.
J. FORSTERMAN, Newtown, N. Y.

Help from the Experiment Stations.

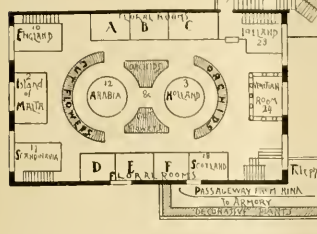
The chairman of the nomenclature committee has received replies from a large number of the agricultural experiment stations to which was sent the circular letter recently published in the *FLORIST*.

With one or two exceptions, the tone of these replies is that of cordial approval. Many of the stations have but just begun operations and are as yet only equipped for farm work, so can only give us good wishes, but from no less than sixteen promise of substantial assistance has been received. Some of these have at present but limited facilities, and can undertake only such work as the testing of annuals and hardy plants, but seven of them have greenhouses and are ready to undertake the testing of almost any class of florists' plants.

Following is the list of state experiment stations that have promised co-operation: Alabama, Arkansas, Illinois, Iowa, Georgia, Mississippi, Maryland, Michigan, Nevada, New Hampshire, New York (at Cornell University), Massachusetts (Hatch Experiment Station), Ohio, Oregon, Pennsylvania, and West Virginia.

Professor Burrill and Assistant Horticulturist McClure, of Champaign, Ill., had long ago the opinion that some part of the Government appropriation ought properly to be devoted to the interests of floriculture. It will be remembered that Professor Burrill sent a communication to the Chicago convention to that effect, and he last year secured permission from

the board of direction of his station to undertake some work in the very line we are now proposing. Mr. McCluer notified two former officials of the S. A. F. to this effect, but for some unexplained reason his communications seem never to have been brought to the notice of the nomenclature committee.



Nearly two years ago the director of the Michigan station also expressed his willingness to undertake some work in the interests of floriculture, if the S. A. F. would only indicate what work it wanted done, and this was brought to the notice of the society by the present writer at the New York convention, but no one seemed to have any work to suggest and the proposition fell cold.

Now, however, we have a work of unquestioned importance, and one which the experiment stations may with propriety take up and are ready to take up. If we do our part, they will certainly do theirs, and it will be our own fault if important results are not accomplished in the near future. J. D. R.

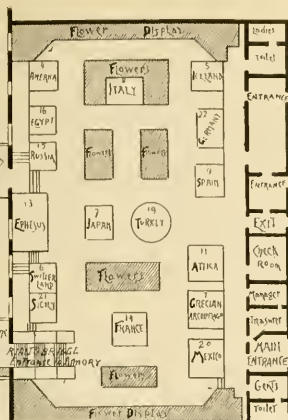
Chrysanthemum "Ostrich Plume."

The names "Ostrich Plume" and "Mrs. Alphens Hardy" have been given to the same chrysanthemum in one of the spring catalogues, "Ostrich Plume" in large type and "Mrs. Alphens Hardy" in small type, and my customers are calling for the "Ostrich Plume" chrysanthemum. I sell them the Mrs. Alphens Hardy and tell them it is the same thing but it takes an awful amount of explanation to convince them and it is very annoying. What use is there of adding another name to a plant which already has one and thus cause needless confusion and trouble? Little Rock, Ark. W. W. HERRON.

[This is rather a knotty problem. It seems unwise to multiply names, and still we can hardly object to catchy, popular names when the correct name is also given. The brisk demand our correspondent has had for the "Ostrich Plume" over the Mrs. Alphens Hardy, would indicate that the catchy name sells the plant more rapidly, and that he is getting some of the benefit of the cataloguer's advertising. If it takes a name of this kind to popularize a plant, and get the public to buy a good thing, we presume we shall have to indulge the public, only insisting that the correct name be always given with the other.—Ed.]

Detroit Exhibition.

We present herewith a floor plan of the arrangements for the coming floral and musical festival at Detroit. The booths are to represent the architecture of the countries designated and will be presided over by ladies attired in the costume of that country. Each one of the city charities has a booth and has selected some one flower which it will have on sale,



The competitive displays of plants and flowers will be interspersed as shown for which over \$1700 are offered in premiums. The exhibition will be open four days—April 22-25, and is under the direction of Mr. W. H. Brearley, proprietor of the *Detroit Journal*. The net proceeds will be divided between the twenty-three Detroit charities, the managers of which will of course use all their influence to make the festival a success.

American Horticultural Society.

The ninth regular meeting of the above society was held in the hall of the House of Representatives at Austin, Texas, from February 17 to 21. Although not strictly germane to a florists' publication, we are all so interwoven that a few words of its proceedings may not be out of place. The A. H. S. is an outgrowth of the old Mississippi Valley Horticultural Society, holding its conventions biennially so as not to clash, and to alternate with the American Pomological Society. Two years ago this society took in California, and it proved one of the most wonderful jaunts that has ever been undertaken by members of the craft. This year Texas was selected as a new and untried field, and none but those who have traveled over this wonderful state has any idea of its boundless possibilities. One may read and read, but it conveys no adequate idea of this one state of this great country.

As by far the most of the meeting was taken up by other than floral work, I will not tire your patience by the different papers presented. Suffice it to say that fruits, trees and kindred interests were the rule; although a paper from the late Peter Henderson on the culture of the chrysanthemum, had been sent previous to his death, and was read together with an eulogium on his services to horticulture. A paper was also read on the now quiet subject of a national flower by Mrs. J. P. LaMonte, of Illinois, that took the ground that no one national flower should be selected, but that each state should select a flower, and for the nation at large, the whole should be combined into one vast nosegay or wreath. The American florists seem to have quit the national flower idea about as suddenly as it was sprung on us and so will.

After the meeting, as usual, came sight seeing, and the Texans vied with each other to take the crowd all over the state. The only points finally accepted as ad-

missible and bring the time within the possibilities, was first a run up to Marble Falls, where the granite was obtained for the great Capitol building. From thence to San Antonio, an old place with lots of buildings of the Jesuits, dating back to old Spanish times. Here, among numerous other native plants of wonder to the northern man the *Acacia lutea* was a mass of yellow blossoms, and as common as the willows of the north. From thence a trip to Rockport on the Aransas Bay, a vast expanse of water landlocked from the gulf and that is supposed to be capable of making the finest harbor in the south. Thence to Galveston, where the summer is perpetual and the oleander a weed with great bushes and hedges a mass of flowers. A train from this point fifteen miles back from the gulf and a grand strawberry festival was given on the open lawn, with the heat like a summer's day. Near this place, Hitchcock, is an old Freuchman, H. Perthuis, with a large rose garden, containing hundreds of kinds of roses, including all our ordinary greenhouse kinds, teas, monthlies, etc., in great bushes and a sea of flowers, like a veritable June rose garden. So far, as with us, they had had no cold weather and vegetation of all kinds was summerish in the extreme. But alack, what a part of the state at least showed 24 hours after we shudder to think of, as by that time we had run a 12 hour's trip to Lampasas Falls, and in 12 more to Demison, when the blizzard struck us, and with peaches, strawberries and similar things in full bloom, figs set with fruit and so forth, the thermometer showed 12° of frost and still falling. Such a storm is occasionally looked for in this locality early in January, but in a season like this at the end of February it means disaster, and is one of the things that make one satisfied with the ills one has and not be to hot to fly into those one knows not of.

Much is here as a matter of course crude in the way of gardening, but the time must come when at certain seasons of the year it will be a veritable paradise, even now the people simply pity the people of the north, and are contented and happy. A very good idea may be conveyed to the florist of the climate when told that near Galveston tuberoses were in full flower out of doors.

That the society is a strong one may be gathered from the secretary's report, giving a membership of 703 last year, from all the states except Montana and all the territories except Alaska, New Mexico and Indian Territory. The expense including a well gotten up report biennially, is maintained by the \$2 dues which entitles to the report.

The officers elected are: President, Parker Earle, Cobden, Ill.; Secretary, Prof. Papinow, Experimental Gardens, Manhattan, Kan.; Treasurer, J. C. Evans, Harlem, Mo. EDGAR SANDERS.

Cut Worms.

In my garden last summer I found that those "light colored" large worms about an inch in length were destroying the foliage on many of my tender-leaved plants. On the ground I discovered one full-grown worm, seemingly dead, and a large red ant was tugging at it, actually dragging it away. Exploring further, I saw an ant run briskly up a plant and pinch a large worm that was contentedly feeding on a juicy leaf. The worm dropped to the ground, and at least a dozen ants started for the wriggling worm. Each one gave him a pinch. The worm writhed and twisted, but its tormentors never relaxed

their hold on its tenderskin. After a very short time the worm was worn out, and died after its fierce struggle for liberty. In a few days after I saw the first ant in my flower bed I couldn't find a worm on my plants. It seemed so remarkable to me to see such a small insect attack an object so many times larger than itself that I thought it worth recording.

Prescott, Wash. Mrs. C. L. BOONE.



Promising Sorts.

ED. AM. FLORIST:—I send you a box of carnations, containing fourteen varieties, many of which I do not remember to have seen described in the *FLORIST*. And as every progressive florist in at least the United States does not fail to read your valuable paper I thought a description of some of the varieties with characteristics of growth, etc., would surely interest some of your readers.

Silver Spray, a comparatively new variety, has been often described and is pretty well known, but the half has not been told. It has three points of excellence which can not be too strongly dwelt upon; first, it comes early; second, after the first few pickings it can almost invariably be picked with stems from six to eighteen inches in length, and that without sacrificing buds or cuttings; third, rapidity of opening. Blossoms can be picked close and in a few hours can be gone over and picked again even in winter.

Silver Lake, though we do not consider as approaching Silver Spray, yet has many points of excellence. The flowers are of good size, deeply fringed and also produced on very long stems.

L. L. Lamborn—have picked the largest blooms from this variety that I have ever seen, without exception. Of the purest white, dwarf in habit and splendid for pot culture and low benches.

Jeanette, another white and exceedingly strong grower. Though late, can be developed in good season, and in freedom, purity of color and size of blossom is exceptionally fine.

Starlight, the most delicate shade of yellow that we know of in the market, and taken with the pure white varieties lately introduced makes a most dainty combination of colors. Very like its parent Hinze's White in habit, strength, etc.

Shellflower, although not one of the new varieties, its merits are not appreciated. It is a clear shade of pink, lighter than Tidal Wave or May Queen; flowers of good size and substance and produced freely.

Florists have been trying hard to find some variety of carnation that will give the beautiful shade of Grace Wilder without its defects. Among the contestants for this enviable place of honor we find Beauty of Oxford, the shade of Grace Wilder at its best, and as yet developing none of that variety's unfortunate tendency to come off color. Its disposition is to come late, but I think it can be brought in as early as Hinze's White.

Fair Rosamond, another rival of Grace Wilder, somewhat lighter in shade and of great promise.

Blizzard, ground creamy yellow, striped and variegated with scarlet, large, early and free; promising in its class.

Paxton, white striped with scarlet, very productive of large perfect blossoms.

Old Gold, a new variety of the color of which is fitly described by its name.

Geneva, good addition to the fancy varieties; white, mottled and edged with purple, dwarf in habit, early and free.

Delicata, a delicate creamy white, edged with light pink, very free and blooms produced on long stems.

J. J. Harrison, the largest, daintiest in color of any variegated carnation we have seen. Its beautiful white blossoms just outlined with pink make it a valuable addition to plain white for any class of designs and for cut flowers. We find it indispensable.

Grand Haven, Mich.

GEO. HANCOCK.

Carnation Growing.

We grow our carnations entirely in crops—that is we have four houses devoted to carnations—H. White—and they are all kept at different temperatures, varying from 40° to 60°; the house in which the highest temperature is maintained coming in first and the others following about four weeks apart at January 1. All the houses are then about blooming, say one house is going out, one just beginning and two in full crop. These four houses hold about 10,000 plants and each plant averages about 40 blooms. Each house is 120x18 and holds about 2,500 plants. We shall grow ten houses of carnations next year.

SCHILLER & MAILANDER.

Niles Center, Ill.

Cost of Production.

Regarding Mr. Chitty's notes in last issue on cost of producing carnation blooms, several queries have been received as to where the cost of the plants was provided for. This same point occurred to us when Mr. Chitty's article was received and we dropped him a line regarding it. He replied as follows: "The plants which produced the flowers referred to were, with one or two small exceptions, of my own growing, raised and grown with the help and labor already accounted for, so that there is only the use of the outside land to account for, and as I charged full value for use of that occupied by the house, thought would let it go at that."

The Buttercup.

I would like some one who has been successful in growing this carnation to describe his methods and conditions. Does it do best in heavy soil, or light loam? What temperature suits it best? The florists of this city say Buttercup cannot be grown here. I think it can, with proper treatment.

Springfield, Mass.

H. G.



DEVICE FOR SPRAYING LIQUID INSECTICIDES.

Grace Wilder.

I grow carnations only, and last season I cut 26,000 blooms from 700 plants of Grace Wilder. I have 1300 plants and in spite of the dark, cloudy and rainy weather, they are doing better than the average hereabouts.

Springfield, Mass.

H. G.

Heating Hotbeds.

The sketch shows the manner in which Geo. Klehm, a florist of Arlington Heights, Ill., has arranged his hotbeds for heating by 4-inch hot water pipes. The bed is built up against the sides and ends of the greenhouses, the outer wall being of brick as shown. From the wall a 12-inch plank extends out over the hot water pipe, the inner edge being supported by 2x4 uprights (shown by dotted lines) placed at intervals. The sash laps about four inches on the plank. With this



arranges the heat from the pipe diffuses evenly over the bed without the liability of injuring any plant through too close contact with the pipe and permits all of the space covered by glass to be fully utilized.

Device for Spraying Liquid Insecticides.

Florist Whiting, Wellsboro, Pa., sends the accompanying sketch of a device for quickly and effectively applying liquid insecticides. He has found it a great saver of labor and time in this work. Fill the can (3) with the insecticide through the opening closed by a screw cap (4), attach to the hose (5), open the stop cocks (2-2) and the insecticide will be forced out in a spray through the fine rose (1). The one which he has had made for his use holds two quarts.

News Notes.

FLATBUSH, L. I.—We regret to learn of the decease of the only daughter of Mr. and Mrs. Gas W. Bennett Feb. 26 last.

ST. PAUL, MINN.—The Society of Minnesota Florists held its semi-annual meeting at the Metropolitan Hotel, this city, Wednesday, March 12.

NEWARK, N. J.—Geo. Newbold, the Davis avenue florist, has leased his greenhouses for a term of ten years to Daniel Wettlin, formerly of Hornellsville, N. Y.

MINNEAPOLIS, MINN.—It is reported that A. J. Harris, of Niles Center, Ill., proprietor of the Paris Floral Store here, will close the establishment at an early date.

HORNELLSVILLE, N. Y.—Daniel Wettlin has sold his greenhouses here and removed to East Newark, N. J., where he has leased the greenhouses belonging to George Newbold.

KANSAS CITY, Mo.—Newell & Kidd have removed to handsome new quarters at 16 West Twelfth street, which have been elegantly fitted up. They intend later to build a conservatory in the rear.

WOODBURY, N. J.—The greenhouses of J. C. Gibson were almost entirely destroyed by fire early on the morning of March 7, supposed to have originated from a defective flue. Loss is estimated at \$2,000 with no insurance.

SPRINGFIELD, MASS.—Edmund W. Clarke, for nearly 20 years a florist in this city, died at Northampton March 5, from paralysis of the brain. He was born at Easthampton April 5, 1833, and was consequently in his 56th year.

UNIONTOWN, PA.—Please correct the statement in Feb. 15 issue to the effect that Chas. E. Stenson had rented Barton

Bros., greenhouses, etc. The facts of the case are, he and H. Hughes have formed a partnership and will conduct the said business under the firm name of Hughes & Stenson. Both parties were formerly at Wilkes Barre.

UTICA, N. Y.—J. W. Alexander, the Mandeville street florist, died Feb. 3, of pneumonia, aged 68 years. He was born in Sussex, England, came to Utica in 1853, and had been at the present business location for 33 years. His wife died just 11 days before he did. The business is being carried on at present by Mr. G. W. Chatfield, a son-in-law of deceased.

ASHTARULA, O.—The estate of Mr. F. E. Fassett is now in course of settlement. Mr. Fassett died Nov. 26 last from tumor of the bowels. He was 46 years of age, was born in this city and had always lived here. He and his brother Jas. A. Fassett had been in the florist business for about ten years under the firm name of F. E. Fassett & Bro. His brother will continue the business.

CLARKSVILLE, TENN.—A terrible cyclone passed over this place February 25 and did great damage all through this section. One of the largest greenhouses belonging to J. J. Crusman—20x100—was completely destroyed. A large chimney was first thrown on to it, which made a hole for the wind to enter, and the entire house was carried nearly 100 feet away. Fortunately very little injury to plants.

GLEN COVE, N. Y.—Mr. C. M. Pratt, of Brooklyn, has bought about 700 acres of Dosoris property, contiguous to Mr. C. A. Dana's, and intends building upon it country residences for himself and each of his several children. Mr. James Holloway has been engaged as his gardener. In connection with his Brooklyn residence Mr. Pratt has one of the finest private greenhouse establishments near New York. Mr. David Rose is his head gardener there.

LONDON, ONT.—Trade up to the present has been equal, or probably a little in advance of other seasons. Owing to so much sickness, there have been but few festivities, and consequently the demand in that direction has been but a small one, but the increased demand for funeral flowers has made returns about equal. At the last meeting of the Florists' and Gardeners' Club, it was decided to hold a chrysanthemum show Nov. 4, 5 and 6; a prize list was adopted in which prizes to a considerable amount are offered. To ensure success in the undertaking, a sufficient amount to cover all expenses has been guaranteed by members of the club.

A C. O. D. Order.

Messrs. F. Morat, Sons & Co. send us an "order" received by them from Texas which is not bad. It reads as follows: "Dear Sir, would like to have a variety of your flower seed and one Runing Rose can settle for them on Delivery a Small amount like this I can send you in Postal stamps with respect."

A WHOLE PAGE IN THE FLORIST will cost you only \$42 for one issue and in it you can send your spring trade list to every wholesale buyer in the United States and Canada. We can do you more good for less money than a list printed and mailed by you. If your list will go in a space of one half page, it will cost you but \$21. Send in copy at once for April 1 issue, not later than March 24.

SITUATIONS, WANTS, FOR SALE.

Advertisements under this head will be inserted at the rate of 10 cents a line (seven words) each insertion. Cash must accompany order. Plant ads. not admitted under this head.

SITUATION WANTED—By experienced and competent gardener and florist. Private place preferred. L. BUCHENHOF, box 285, Norfolk, Neb.

SITUATION WANTED—Gardener to private place, 14 years experience. Young man, married, no children. BROWN, 816 Garfield Ave., Jersey City.

SITUATION WANTED—By a lady to learn the cut flower trade. Am acquainted with book-keeping. Address D. R. BURR, 465 6th St., Englewood, Ill.

SITUATION WANTED—As rose grower, by a thorough practical man. Married, no family. Address FLORIST, 13 Draper St., Rochester, N. Y.

SITUATION WANTED—By a young man (20) near New York. References from J. M. Keller, Bay Ridge, and H. A. Dreer, 714 Chestnut St., Phila. Address P. DAVIS, 13 Bay Ridge, L. I.

SITUATION WANTED—(Gardener, 8 years' experience) thoroughly understands roses and violets and care of greenhouses and nurseries; references Address JAS. SUTHERLAND, Jr., Winchendon, Mass.

SITUATION WANTED—By single man; expert scented florist; understands growing of roses and all kinds of cut flowers. Also experienced in putting up steam or hot water boilers. Apply to J. WIDLEY, Mt. Washington, Md.

SITUATION WANTED—By a young man, florist wishes a steady engagement by lat of April; good in propagating and growing all kinds of cut flowers and plants; 12 years' experience. Address K. C. care American Florist, Chicago.

SITUATION WANTED—As gardener on private place, 15 years' experience. Understands the growing of plants, cut-flowers, fruit and vegetables. English; single; age 28. First-class references. Address G. FARRANT, 1359 1st St. N. E., Washington, D. C.

SITUATION WANTED—By a young man under 20 years of age, private place preferred, 3 years' experience in general greenhouse work. Am very strictly temperate, good references, will be open for an engagement April 1. Address WILLIAM STUART, Winchendon, Mass.

SITUATION WANTED—By an experienced gardener and florist, in greenhouses and nurseries, first class rose grower and propagator, best of references for 20 years, for private or commercial business, married. Address H. E. NIEMELA, West 23th St., Erie, Pa.

SITUATION WANTED—Private or commercial, by a young man, gardener and florist; age 27; single with 3 years' experience in greenhouses, garden, nurseries and landscape gardening. Good references if wanted. Address J. B. care John Breitmeyer & Sons, Detroit, Mich.

SITUATION WANTED—By a well experienced florist, an foreman in a commercial or a good private place, understands all kinds of plants, cut flowers and vegetables, 15 years' experience, first class references, married, Sweden, well preferred. Address CHARLES LARSON, 180 Prospect Ave., Kansas City, Mo.

WANTED—An experienced rose grower; married man without large family preferred. First class recommendations required. Address M. care Wm. J. Stewart, Boston.

WANTED—To engage for next winter's firing, either hot water or steam, to work under glass all that time, but would prefer constant work in houses. Address J. T. TURNER, Salem, Ohio.

WANTED—A first class rose grower, one who can come well recommended to be capable to take charge of a good sized plant and not afraid to work himself. Address Box 10, American Florist.

WANTED—Florist who thoroughly understands the business of propagating and growing roses and cut flowers for market; wages \$75 per month; references required. Address ROSE WRIGHT, 12 E. 4th St., Spokane Falls, Wash., Ter.

WANTED—A propagator of roses, grapes and clematis, to care for six houses; must be temperate and a good workman. Write at once stating wages expected and give references. Address WASHINGTON ST. NURSERY, Geneva, N. Y.

WANTED—A single man fully understanding a florist business, to take care of garden and make himself otherwise useful at an Adirondack hotel. Address with references T. EDMOND KATZMOLZ, Waukegan, Franklin Co. N. Y.

WANTED—Thorough practical florist, single man, experienced in rose and general plant growing able to take the lead among four assistants; wages \$30 per month and board. None but competent need apply. Must be well recommended. Address JOHN RECK, Bridgeport, Conn.

WANTED—To correspond with a live American born German Catholic, with a view to establishing a florist and market garden business, in a New York city of 500,000; no competition; good experience, and capital required. Married man preferred. Address J. H. care American Florist.

WANTED—A florist clerk, single man, good maker up, must have a general knowledge of the business, and experience in taking orders, and should be energetic in matters. Wages \$30 per month and board, situation permanent, good references required. None but competent should apply. Address JOHN RECK, Bridgeport, Conn.

WANTED—A young man about 23 or 24 years of age as assistant gardener, one with some experience in the growing of grapes, pomegranates, etc., and who has held two or more similar positions previously and who can come well recommended, English or American. Address N. BOX 155, Varmouthport, Mass.

FOR SALE—Windmill with pump and pipe; all in good repair. Cheap. GEO S. BELDING, Middletown, N. Y.

FOR SALE—One Eleven Section Carmody hot water boiler, as good as new. Will sell complete outfit for \$75.00. J. J. SCHMIDT, Sioux Falls, S. Dakota.

FOR SALE—If you are looking for a good opening for a retail florist business and have about 2,500 ready money, you should address F. care American Florist.

FOR SALE—An eight years' established florist business in a live city of 40,000 centrally located. Address for particulars 309 E. 1st St., Duluth, Minn.

FOR SALE—A first class retail mailing trade, with addresses, good will etc, parties desiring to buy and meaning business, address S. I. X, care American Florist.

FOR SALE—A very nice house with 70 acres of land; 1 acre woods, 6 greenhouses, dwelling house, barn, wagon and buggy, stock of plants, etc. For further particulars apply on premises to F. J. DOUGLAS, Cor. Langley Ave. & 40th, Chicago.

FOR SALE—Desirable greenhouse establishment, 6 established years, 6 greenhouses, dwelling house, barn, wagon and buggy, stock of plants, etc. For further particulars apply on premises to F. J. DOUGLAS, Cor. Langley Ave. & 40th, Chicago.

FOR SALE OR LEASE—For the want of time to give the requisite personal attention I will sell or lease my place, comprising two acres and 12,000 feet of glass, all well stocked, near Chicago. Reply to C. American Florist.

TO LEASE—Six greenhouses advantageously located and well stocked in same for sale, consisting of hydrangeas, callas, roses, carnations and good assortment of bedding plants for spring sales. Address SARAH W. STOKY, Brighton, Mass.

FOR SALE—Florist establishment, seven houses and store, with good retail trade. House stocked and everything in the first-class order, in the center of the city of Chicago. Very cheap rent and best location. Good place for a right man. Address A. N. care American Florist.

FOR RENT—Four greenhouses heated by hot water; well stocked with miscellaneous plants. Will sell stock cheap. A No. 1 opportunity for live man. Worth investigating. Business comes and closing out. Write for particulars, or come and see. E. J. MILLER, Downers Grove, Ill.

FOR SALE—A florist establishment, one greenhouse 75x15, and two 75x10 feet each, heated by hot water (weathered); 25 acres of good land, some wood and pasture, plenty fruit; dwelling house, barn and other out-buildings; good well and cetera. All buildings new and in good order. Near New York City. One mile from depot. Price, \$4,800. Address F. O. Box 109, Ramsey, N. J.

FOR SALE—A well appointed wholesale floricultural establishment; 32,000 square ft. of ground, City. All cut flowers are sold on the premises to first-class retailers, and the demand exceeds the supply. Excellent location given for selling roses. \$80,000, one-third cash, balance on bond and mortgage. For particulars, address THE W. W. TURNER'S SONS, 46 and 48 Marion Street, New York City.

FOR SALE—A grand opportunity to any one about building greenhouses. The underground well (with or without land) their entire plant at a great bargain, consisting of about 25,000 feet of glass, 750 feet of ventilating apparatus (Hutchings & Co.), 7,000 feet of 4-inch pipe, two No. 18, one No. 19, one No. 16 and one conical boiler, all in first-class order, and made by Hutchings & Co. Houses only been built a short time. For further particulars, apply to J. ERUS, P. O. Box 212, South Orange, N. J.

FOR SALE—The leading florists business in Topeka, Kan., the Capital and largest city of the State. Demand and business constantly increasing. Population doubled in the last five years. People cultured, and one of the finest cities of the West. Large shipping trade. Most widely diversified and best known florists business in the State. Business cash and ready money. Best of reasons for selling. Can be had at a bargain for cash. Correspondence solicited. Address PAUL M. PIERSON & Co., Topeka, Kansas.

WANTED. First-Class Vegetable Gardener, To take charge of 20 acres. Must be single man, of good habits and able to furnish satisfactory testimonials as to character and capability. Address, with references, Supl. Northern Insane Hospital, ELGIN, ILL.

1890 Every Florist, Nurseryman and Seedsman should have one.

DIRECTORY. AMERICAN FLORIST CO., Chicago.

Looking Backward.

Many years ago—back in the nineteenth century, when the trade was comparatively in its infancy, the methods of conducting the business were naturally very crude. The present standard plant classification was then unknown and when a plant grower advertised his product for sale to the trade he designated the size and quality of the plant by the size of the pot (an earthenware receptacle in which plants were then grown). This of course gave a chance for a remarkable stretch of the imagination as to what the plant really was, and well illustrates the many disadvantages under which buyers and sellers then labored.

Toward the latter part of that century history shows that the catalogue business first began to develop to some extent, and a collection of catalogues of that time, recently unearthed in the garret of an old house, proved to be a veritable mine of curiosities. Many of the ancient style of engravings on wood were most remarkable, and some of the colored engravings (called colored lithographs at that time) were simply absurd, and show that in those early days the publishers of catalogues considered a gaudy dab of color necessary to draw trade from the people, who must have been very crude indeed to have been pleased by such burlesques upon nature. The lists of plants offered were even more lengthy than those of the present day, for then anyone could easily force the sale of any plant, however valueless. There was then no way to authoritatively establish the value or worthlessness of new introductions except to buy them and try them for yourself, and frequently new but worthless plants met with an extensive sale, considering the scantiness of the population at the time. The public experimental gardens now established on every isothermal line, in which every new plant is tested before it is allowed to be offered to the public were of course then unknown.

The gradual evolution of the method of handling cut flowers is quite interesting. Previous to 1900 the flowers were in some cases carried to the retailer by the grower, and in others were shipped by the grower to commission dealers of which there were a number in each large city. There was but little attempt made to classify the stock as to quality, and the different dealers acted entirely independent of each other as regards establishing prices. The present system of a cut flower exchange in every city connected by electrophones and express tubes with a main exchange where the trade of the whole country is regulated by instantly supplying any shortage at one subordinate exchange with the surplus at another was then undreamed of. As before stated there was no reliable system of classifying the stock as to quality and when a dealer in one city wished to buy from one in another he sent a message by the ancient telegraph, specifying merely the variety of flower or flowers he desired, and the one receiving the order filled it with any flowers of that variety he had, so that the buyer never knew what the quality would be until it arrived by the "express train," the most rapid method of freight transit then known. How long could we transact business now-a-days with any such lack of system? Some are now claiming that our present elaborate classification as to quality can be improved upon. If a florist of that day could be brought to life to view the scenes which would now meet his eye how he would be amazed at the way our brokers

buy and sell on the cut flower exchanges, for buying and selling futures was then confined entirely to food products.

From the early records it appears that the first attempt upon the part of the florists of America to organize, and unify their interests was made in 1885 when the "Society of American Florists" was formed, and the proceedings seem to at first have been very crude, though probably of considerable value to the trade at that time. Even as early as 1888 some attempt was made to place the trade upon a better footing through the instrumentality of the society, but even such mild measures as those advanced by the more progressive men of the day were apparently met by considerable opposition. It was not until early in this century that our present national organization with local supervisory committees at every large trade center, was established.

Many other curious and interesting facts connected with the early history of the trade are revealed by a careful study of the early volumes of the AMERICAN FLORIST (originally published semi-monthly), and the printed proceedings of the Society of American Florists, and with the editor's permission I may mention them in subsequent papers.—E. B. in *American Florist*, August, 1985.

TARRYTOWN, N. Y.—F. R. Pierson, the well known florist, has bought a tract of land near Sparta, upon which he will build four greenhouses, each 304 feet long, and together containing 30,000 feet of glass. Work has been commenced and the buildings are to be completed by about July 1. The cost will be \$25,000. Paul M. Pierson, who has for several years been in the business at Topeka, Kansas, will have charge of the new establishment.

OUR NEW TRADE DIRECTORY is now ready. It gives a complete and accurate list of the florists, nurserymen and seedsmen of the U. S. and Canada. Price \$2.

PRINT your spring trade list in the next issue of the AMERICAN FLORIST and mail copy for same as early as possible.

100,000 ROSES 100,000

We have doubled our facilities for growing roses of all sizes, and will be glad to price your lists whenever and whatever you may need. Three acres under glass. Most complete and most select collection in every department. Send for Wholesale and Retail Descriptive Catalogue.

ADDRESS **NANZ & NEUNER,**
LOUISVILLE, KY.

ROSES.

STRONG, WELL ROOTED CUTTINGS.

MEKMET and BRIDES..... \$25.00 per 1000

Or will Exchange for LA FRANCE.

Satisfaction guaranteed.

FAUST & BRO., Merion, Mont. Co., Pa.

ROSES.

Good strong young 2-inch pot plants at \$3 per 1000, strictly my selection of Teas, Hybrid Teas, and Noisettes, true to name and good varieties, from last summer's propagation.

Gen'l Jacqueminot, at \$5 per 100, \$40 per 1000.

GERANIUMS.—Good varieties, my selection, at \$30 per 1000. Single and double. Mme. Salleroi, at \$3 per 100. ROSE GERANIUMS, \$3 per 100.

FERNS.—Adiantum Cucurbitum, and Adiantum Decorum, from 3-inch pots, at \$2 per 100.

LATANIA BORBONICA.—5-inch pot plants, at \$4 per dozen; 4-inch pot plants, \$3 per dozen.

AMPELOPIS VEITCHII.—One year old plants, at \$6 per 100.

PRIMULA OBCONICA, 4-in. pot plants, doz. \$1.50.

FUCHSIAS.—Good varieties, 2-in. pots, \$3 per 100.

CYTISUS RACEMOSUS.—Strong, 5-in. pot plants, \$3 per dozen.

Strong 4-in. pot plants, \$2.25 per dozen.

VINCA VARIEGATA.—2-in. pot plants, \$3 per 100.

HARRISONII, 2-in. \$5 per 100.

PETUNIAS.—Double, 12 varieties, at \$4 per 100.

GEO. W. MILLER,

1748 N. Halsted St., CHICAGO.

ROSA LAXA.

THE BEST STOCK FOR DWARF AND STANDARD ROSES.

Strong plants, three years transplanted.

Each 75 cts.

Per dozen \$ 6.00

Per hundred 35.00

FROBEL & CO.,

NURSERYMEN,

ZURICH, SWITZERLAND.

ROSES.

A very large stock of young roses of the leading bedding and forcing varieties. Also large stock of same in 5 and 6-inch pots.

The best and newest of CHRYSANTHEMUMS.

CARNATIONS and general greenhouse stock.

Trade list mailed on application.

JACOB SCHULZ,

Louisville, Ky.

H. P. and MOSS ROSES.

Years out of open ground, \$40.00 per 1000. Moss, \$10.00 per 100. Tea Roses, out of 3-inch pots, \$1.00 per 100.

If you need any stock, write for it. I will sell at your own prices, if not too low.

E. HIPPARD,

YOUNGSTOWN, OHIO.

Patentee of the best Ventilating Machinery.

IMPORTED H. P. ROSES.

Worked low on the Manett Stock, offer the best results to the florist, blooming freely and giving plenty of cuttings for propagating quickly. Fine plants for sale by the 100 or 1000, at low rates.

Price lists to applicants. Address

WILLIAM H. SPOONER,

JAMAICA PLAIN, (Boston), MASS.

FOR SALE.

Several thousand Ficus elastica cuttings; also several very large Ficus trees, 12 to 15 feet high, with, from 100 to 200 young growths. Address

JOHN MILLER, Box K, Glenville, O.

THE OAKS ROSE NURSERIES.

ROSES.

Meteor, Mme. Cusin, Perles, Niphetos, Mme. de Watteville, Brides, Papa Gontier, Me mts, Migna Charia, and Gen. Jacqueminot.

CARNATIONS.

Hinsdale, May Queen, Orient, Silver Spray, Paxton and Buttercup

Strong healthy plants at lowest prices. Write for particulars.

JOHN H. TAYLOR,

BAYSIDE, L. I., N. Y.

J. C. VAUGHAN, CHICAGO.

OFFERS

MAY 15]

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H. P. Budded, very strong, 2 to 3 ft.	Per 100	\$15.00
MADAM PLANTIER, medium.	8.00	
" strong, 2 to 3 feet.	12.00	
PRairie QUEEN	11.00	
MOSS, BLANCHE MOREAU, the finest pure white moss, medium, 12; Strong, 2 to 3 ft.	15.00	
MOSS, ASSORTED, 12 to 24 inches.	10.00	
TREE ROSES, good heads, good roots, stems 3 to 6 ft. Finest stock in America.	50.00	
HERMOSA, 8 to 15 inches, fine for potting.	5.00	
DUCHESS OF ALBANY, 2-inch.		Write for prices.
H. P. GLORIE DE MARGOTIN		
CLOTILDE SOUPERT, 2-inch.		
MADAM HOSTE, 2-inch.		
SOUVENIR DE WOOTTON.		
CARNATIONS, Tidal Wave, Silver Spray, Fortia and J. J. Harrison.		
FUCHSIA Mrs. E. C. Hill, fine.		

HYDRANGEA P. GRANDIFLORA.

4 year, clean, straight, 3 to 4 feet.	12.00
18 to 24 inches.	10.00
1 year plants, 4 to 6 inches.	4.00
RHODOENDRONS. Imported plants.	37.50

HARDY SHRUBS AND CLIMBERS.

DEUTZIAS, for present potting. LILACS, SPIRÆAS, AMPELOPSIS VEITCHII, WEIGELIAS, HONEY-SUCKLES, etc. Complete List and Low Prices.	
CHINESE NARCISUS, @ \$10.00.	
SPIRÆA AND DIELYTRA, \$6.50 per 100.	
LILY OF THE VALLEY, Clumps.	

DAHLIAS.

DRY ROOTS, named, very choice sorts.	Per 100	\$10.00
POT PLANTS, now ready, choicest named sorts.	per 1000, \$55.00, 6.00	
" Pure yellow, white or scarlet, 600		

IMPORT PRICES on Fall bulbs ready.

Let us estimate on your needs. We deliver in season.

ROSES. ROSES.

The most important Collection

IN THE WORLD.

Standards and Dwarfs,
Strong and fine plants.

87 NOVELTIES FOR 1890.

ALL THE BEST VARIETIES,

Ready in April. Price, \$25.00.

Write for Catalogue with numerous engravings.

Soupert & Notting,

ROSE GROWERS,
LUXEMBOURG, GRAND DUCHY, EUROPE.

ROSES.

LARGEST COLLECTION in the WORLD.

We DO OFFER all Novelties for 1890 ready in 3 inch pots. 90 NOVELTIES for \$5.10 about middle of April.

Ask for ILLUSTRATED CATALOGUES.
SCHULTHEIS BROTHERS,
ROSE GROWERS,
AT STEINFURTH, NEAR NAUHEIM,
HESSE, GRAND DUCHY, GERMANY.The New Rose
CLIMBING NIPHETOS,
READY April 1st. Price, \$1 each; \$10 per doz.

Any one having a space for a climbing rose should have it. Also fine healthy stock of Perles, Niphotos, Mermets, Brides, Gontiers and Bons. Prices on application.

SALTER BROS.,

42 W. Main Street, ROCHESTER, N. Y.

ROSES.

We are now prepared to take orders for delivery after April 1, on the following var. 2½-in. pots: AM. BEAUTY, LA FRANCE, PERLE, BRIDE and NIPHETOS, at low rates. 5,000 2½-in. Perles, ready for immediate delivery. Wholesale trade list mailed free upon application. Address:

GERMOND & COSGROVE,

Box 98. STARKILL, Rockland Co., N. Y.

ROSES FOR FLORISTS.

We offer the largest and most complete stock of Roses in this country, straight 2½-inch plants, propagated from thoroughly matured field grown plants, and grown in ordinary soil without manure or any other stimulating material whatever.

OUR ROSES RESIST DISEASE, START QUICKLY, GROW RAPIDLY, AND ALWAYS GIVE BEST RESULTS.

NEW AND SCARCE ROSES OF SPECIAL VALUE: THE QUEEN, best pure white

DOCTEUR REMONT, new hardy crimson, ever-bloomer; COMTESS JULIA HUNYADY, superb golden amber; NAPHITO, New English Tea; MME. HOSTE, best new forcing rose; JOSEPH METRAL, Cape, LEFOT, ERNEST METZ, MISS ETHEL, BROWNLOW, METEOR, MME. DE WATTEVILLE, MME. CUSIN, BARONESS M. WERNER, SUNSET, VISCOUNTESS OF FOLKESTONE, PAPA GONTIER, and hundreds of others. All the choicest and best varieties, new and old. THE QUEEN OF ALBANY, the famous Red La France, GLORIE DE MARGOTIN, new scarlet perpetual; EARL OF DUFFERIN, SILVER QUEEN, BARONESS ROTHCHILD, MME. GABRIEL LUZET, MERVILLE DE LYON, MME. MASSON, MRS. JOHN LANE, DINSMORE, PAUL NEYRON, LA FRANCE, COCQUETTE DES ALPS, and all the best Hardy Roses.

NEW POLYANTHAS, NEW HYBRID TEAS, CLIMBERS and MOSSES. OVER 500 VARIETIES ROSES IN STOCK. Send your lists and have them priced. We want your orders, and will make prices as low as possible.

HYDRANGEA GRANDIFLORA—A leading specialty, large stock strong, open ground plants, all sizes at very reasonable prices. All the newest and best hardy, ornamental shrubs. New Hardy Hibiscus, New Althea Blanche, Viburnum Plicatum, Ruists variegated Althea, New Deutzias, New Weigelas, Sweet Scented Honey-suckles, New Chinese White and other Wisterias, Clematis, Akebias, and all best Hardy Climbing Vines, VERY LOW.

CHIRYANTHEMUMS in 100 finest selected sorts. MOON FLOWERS, extra strong, propagated from blooming plants, finest summer flowering Bulbs, Gladiolus, Tuberoses, and Japan Lilies. FLOWERING SEEDS FOR FLORISTS, including the celebrated Imperial German Pansies in 35 separate shades, and all choicest strains of flower seeds for florists' use.

Satisfaction always guaranteed. WHOLESALE PRICE LISTS FREE ON APPLICATION TO FLORISTS, MARKET GARDENERS and DEALERS ONLY.

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THE DINGEE & CONARD CO.,

ROSE GROWERS AND SEEDSMEN,

WEST GROVE, PA.

C. M. FRENCH.

CHAS. F. ANDERSON.

JOHN HENDERSON CO.,

Flushing, L. I.

ROSES A SPECIALTY. ROSES.

THE CLIMBING PERLE DES JARDINS.

TO OUR PATRONS, AND THE TRADE GENERALLY:—We are convinced that this Rose will prove of permanent value—indoors and out. Its continuity of flowering, vigorous growth, large flowers, beautiful in color and form—a true Tea—must commend it to all.

Strong plants Ready April 1st, \$1.00 each; \$10.00 per dozen.

All the Old, New and Forcing varieties on hand, at lowest prices.

WRITE FOR CATALOGUES AND PRICES.

METEOR.

No untired novelty, free bloomer, no cropper, long stems, bright color, always brings a fancy price, clean, healthy, and sells itself. This has been our experience with the Meteor the past two years. It is certainly one of the most profitable forcing roses in cultivation to day.

We have a fine stock of the above in 2½ inch pots, at \$8.00 per 100. We can also supply from 2½-inch pots, the following varieties, clean, healthy stock:

	Per 100		Per 100
Perles	\$5.00	Mermets	\$5.00
Papa Gontier	4.00	Niphotos	5.00
Sunset	5.00	Mme. Cusin	5.00
Mme. de Watteville	5.00	La France	7.00
Brides	5.00	American Beauty	6.00

Our Illustrated Catalogue of Plants and Seeds mailed free on application.

L. L. MAY & CO., NURSERYMEN, FLORISTS St. Paul, Minn.
AND SEEDSMEN.

ROSES. ROSES.

INCLUDING THE SPLENDID NEW VARIETIES

DUCHESS OF ALBANY, MADAME HOSTE, ETC.

ALSO ALL THE BEST STANDARD VARIETIES OF

TEAS, HYBRID TEAS & HYBRID REMONTANTS.

ALSO ALL THE BEST REDDING VARIETIES.

I AM now prepared to fill orders for the same in Large or Small quantities, TO THE TRADE, from stock that cannot be surpassed by any in the country, at prices that are as reasonable as first-class can be produced for. Also MIGNONNE SEED, MY OWN SELECTION.

TRADE LIST NOW READY.

JOHN N. MAY, Summit, N. J.

Roses. Roses.

Madam Cusin, Madam de Watteville, Catherine Mermet, Bride, American Beauty, Papa Gontier, Perle, La France, Niphotos, Bon Silene. Fine, clean, healthy stock only sent.

COLEUS CUTTINGS.

STRONG ROOTED CUTTINGS OFF YOUNG PLANTS, only \$7.00 per Thousand. GOLDEN BEDDER alone, \$10.00 per Thousand.

FRANK McMAHON, Sea Bright, N. J.

THE ROSE OF THE YEAR.

CALIFORNIA'S NEW ROSE

"THE RAINBOW."

— THE ROSE FOR EVERYBODY! —

**The most Vigorous, Free-Blooming, Forcing
Rose ever Introduced.**

A most lovely Rose of a deep Mermet pink, striped and splashed in the most fanciful way with deep Gontier color, but only enough to add to its beauty, and with base of petals of rich amber. Flowers well carried on long stiff stems, of the same shape as Gontier but most decidedly larger, sweeter and of greater substance.

Remember, "**THE RAINBOW**" is a sport from Papa Gontier, one of the most popular Winter-bloomers. It will do well with everybody. It surpasses its parent in freedom of growth and bloom by far. Experience has taught, that sports from Winter-bloomers have proved to be Roses most fit for the same purpose: for instance, The Bride, Duchess of Albany, etc.

"**THE RAINBOW**" is only offered to the trade. Cut flower growers as well as nurserymen will certainly see the advantage of getting a new American Rose which offers such inducements to each of them.

I am ready to book orders now. All orders will be filled strictly in rotation, commencing July 1st, 1890, at the following prices:

1 PLANT, \$1. 12 PLANTS, \$10. 100 PLANTS, \$75.

The plants will be from 3-inch pots, placed out of doors during June, so as to stand shipment well.

JOHN H. SIEVERS,
25 POST STREET,
SAN FRANCISCO, CAL.

"**THE RAINBOW**" received the highest award in the gift of the California State Floral Society at their last Fall Exhibition.

NOVELTY FOR 1890.

OUR NEW ROSE SNOWFLAKE

Perfect flowers; creamy white; fragrant; free flowering; for funeral work; for wedding work. It will make up in designs as prettily as an aster. Can be grown profitably at \$1.00 per hundred blooms. Why? Because it will out-bloom, two to one, the same space devoted to carnations. It is a European seedling, but the name has been lost, so we call it **SNOWFLAKE**.

We have put the price **LOW—ONLY \$12.00 PER HUNDRED**—from 2½-inch rose pots.

It is free from mildew; free from black spot; a pure tea rose; never has any disease; can be grown among other roses with perfect success and does not require special culture; and it is as easy to grow as a Safrano. We have counted one hundred and forty-three buds and blooms at one time on a single bush nine months old. For pot purposes it is unrivalled, as the constant succession of blooms gives a longer period in which to market it. We have tested it two years and it has bloomed freely even during the past winter.

—**AGAIN, MARK WHAT WE TELL YOU,**—

The **WOOTTON** Has Come to Stay

This past winter it has produced *ten times as many blooms to the square foot of glass as either the American Beauty or Bennett*. Come and see it in bloom now in our greenhouses.

AN OFFER: Let the AMERICAN FLORIST COMPANY select three competent florists, living within a radius of eight hundred miles of Washington, to inspect our Woottons between the 15th and 30th of March, and to give a verdict thereon. We will supply them with round-trip tickets, and care for them while here.

Our Specialty is Rose Growing Under Glass for Buds and Plants.

Below we give you a list of varieties we can supply you from 2½-inch pots:

OLDER VARIETIES.

PERLE,
WOOTTON,
LA FRANCE,

MERMET,
HOSTE,
BRIDE,

AMERICAN BEAUTY,
DUCHESS OF ALBANY,
PURITAN,

PAPA GONTIER,
LUCIOLE,
WATTEVILLE.

VARIETIES OF 1888.

Madame G Bruant, Duchesse d'Auerstadt, Edouard Pailleron, Elie Beauvilain, Glorie de Libourne, Madame Max Singer, Mlle. Henriette de Beauvau, Scuv. de Madame Metral, Therese Lambert, Jules Dassonville, Madame Carle, Madame Ernest Piard, Mlle. Germaine Caillot, L'Ideale.

VARIETIES OF 1889.

Golden Fairy, Adele de Belabre, Capitaine Lefort, Charles de Thezillat, Edmond Sablaroyles, Ernest Metz, Joseph Metral, Lady Castlereagh, Madame Pierre Guillot, Comte. Henri Rignon, Caroline d'Arden, Souv. de Victor Gautreau, Esmeralda, Francisca Pries.

VARIETIES OF 1890.

Clotilde Soupert, Adeline Outrey, Cleopatra, Duchesse Marie Salviati, Dulce Bella, Georges Farber, Gloire des Cuivres, Gustav Nadoud, J. B. Varone, Jeanne Guillaume, Kaiser Friederich, Kaiserin Friederich, Madame Adolphe de Tarle, Madame Marguerite de Sozas, Madame Marie Usher, Madame Marthe du Bourg, Madame Moreau, Madame Olga, Madame Philippe Kuntz, Madame Sadie Carnot, Madeline d'Aoust, Mlle. Genevieve Godard, Madame Marguerite de Thezillat, Marquise de Forton, May Rivers, Miss Marston, Mrs. James Wilson, Rheingold, Souvenir Auguste Legros, Souvenir de F. Goulain, Souvenir de Dr. Passot, Augustine Guinoisseau, Bona Weillshott, La France de 1889, Madame de la Collonge, Madame Hortense Montefiore, Madame Moser, Mlle. Annette Gammon.

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WASHINGTON, D. C.

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No reduction made for large space.

The Advertising Department of the AMERICAN
FLORIST is for Florists, Seedsmen, and dealers in
wares pertaining to those lines ONLY. Please to
remember it.

Orders for less than one-half inch space not accepted.

Advertisements for April 1st issue must
REACH US by noon, March 25. Address

THE AMERICAN FLORIST CO., Chicago.

EXHIBITIONS.

Exhibitions of flowers and plants are held to be great educators of the people, but alas! they are frequently expensive for those who give them. Anything, therefore, which accomplishes the object desired without subjecting the would-be reachers to unwelcome expense is certainly to be commended and is worthy of imitation.

Last April there was held in Detroit an exhibition which, while hardly a model one from the florist's standpoint, unquestionably accomplished a great deal of good, for the great weakness of most exhibitions—lack of attendance by the people whom it is desired to benefit—was overcome. It was visited by over 30,000 people in the four days it was open, and was consequently a financial success.

This exhibition was not given by a horticultural society or a florists' club. It was planned and executed by the publisher of a newspaper—the Detroit *Daily Journal*—with the assistance and co-operation of those interested in the various city charities, among whom the net proceeds were divided, leaving the florists free to devote their entire time to preparing their exhibits and competing for the premiums offered. It was not a floral exhibition pure and simple; it was a huge charity fair with a flower show thrown in, and, under Mr. Brearley's management, made far from the incongruous combination which might be expected. Each of the charities had a booth and had selected some one flower which it kept on sale, and the decorations of some of these booths were decidedly artistic and in keeping with the floral surroundings. And how the people did turn out and flock to this exhibition! In the evenings it was a perfect crush.

The floral display was far below many others which have been but meagerly attended, why then this outpouring? First the manager had a daily paper at his disposal. Its columns were filled with talk about the exhibition for months in advance. It was exceedingly well advertised. Second, he had enlisted the sympathies of the public by offering to divide the net proceeds among the city charities, and at the same time had secured the active co-operation of the people interested in each of these charities and through them the influence of their following. He brought all the active workers in the cause of charity together and united their energies in the work of making the exhibition a success, and it was a success. The premiums and expenses were all paid, each of the charities received a snug sum, and 30,000 people were brought into closer relations with plants and flowers.

This year music will be added to the attractions. An organ is being built expressly for this affair, and a chorus of 400

voices is now rehearsing. This in addition to a full orchestra. Two buildings have been connected for the festival, and arrangements are being made for a more elaborate display of plants and flowers—plan is given on another page. Judging from the way people flocked in from all over the state to the last exhibition, the coming one should be visited by from 50,000 to 75,000 people. Is not such an exhibition of very great benefit—for you can't educate the people through the medium of an exhibition unless you get them to come to it—and can not other cities profit by this example? If the conventional exhibition does not draw the people and this style does draw them, let us have this style. After they have enjoyed these for a while, they will develop a taste for the finer products of the gardener's skill.

HYDRANGEAS FOR EASTER.

On another page we present an illustration of a new hydrangea, but we expect the engraving to do something more than illustrate that variety. We expect it to show to those florists who have not yet devoted their attention to growing such plants for Easter sales what golden opportunities they are over looking. Take a look at the plant illustrated and then ask yourself how you think such would sell at Easter time. Couldn't you sell lots of them, and at a good price too? Of course you could. Well, why don't you grow them then? You ought to grow anything which you can sell quickly and at a good price. But this isn't all. Easter blooming plants are all cleared out of the houses in time to fill up the same space with bedding or market plants. There is good money in growing these plants for Easter sales and if you don't get your share it is your own fault. It has grown to be a very important branch of the trade in most large cities, and it will be just as important in your smaller city if you place a stock before the people. You will find the methods of one very successful grower of hydrangeas for Easter sales, described on page 496, June 1 issue, of last volume.

CARNATION SILVER SPRAY.—A bunch of twenty-five blooms of this carnation, recently sent us by Geo. Hancock, Grand Haven, Mich., were the best white carnations that ever came to this office. Handsomely formed, of large size, perfect calyx, delightfully fragrant, and on stout stems, none less than eighteen inches in length, covered with clean, handsome foliage. Certainly Silver Spray is the white carnation for Mr. Hancock to grow, for the specimens of Silver Lake and L. L. Lam-born which came in the same box were completely overshadowed by it.

CERTAINLY the catalogue published by the B. A. Elliott Co., Pittsburg, is the richest and most artistic one we have yet seen. It is a work of art and a credit to the trade. Much new matter has been added this year to the valuable cultural instructions which precede the catalogue proper, among which is included a beautifully illustrated article on "Newport Gardens." Such a catalogue will be carefully preserved by all recipients, and can not fail to encourage a taste for the beautiful in nature.

PINK PERLE.—Mr. P. H. Meehan, Richmond, Va., sends us a bloom produced by a sport from Perle des Jardins and which he labels "Pink Perle." The bloom was about the size of a small Perle, of a pink shade, though decidedly washy when it

reached us. Of course color and size may improve with the strength of the plant, but what use have we for a pink Perle? Do we want one, and will it pay Mr. Meehan to work up a stock of it? We seriously doubt it.

CO-OPERATION.—Mr. Bearn's essay which appears in this issue contains a suggestion that should receive full consideration by the various Florists' Clubs. Should the plan prove practicable the direct benefits which would accrue to every member would be very considerable. There are certainly great possibilities in that direction.

PLACE ALL your orders this spring with those who advertise in the AMERICAN FLORIST. Our advertisers are all reliable men, and if any prove otherwise we will take it upon ourselves to secure justice to the customer. We refuse advertisements from any we deem unreliable.

AN ERROR.—Our attention has been called to an annoying error in the quotation from Bryant which concluded the tribute to John Henderson in last issue. In the second line of the last verse the word "appointed" was made to read "appropriate."

IF YOU KNOW of any plant which is traveling under two names report the same at once to the Committee on Nomenclature. The full committee with address of each member may be found in another column.

WE WOULD LIKE a clear, distinct photograph of a specimen plant of *Adiantum Farleyense*, also one of a plant of *Adiantum cucumern* in about a 4-inch pot. Will any one having such please favor us with a copy.

NUMEROUS REPORTS of largely increased trade are very gratifying. The florist trade of America is practically still in its infancy, but it is a lusty, sturdy infant and is growing vigorously.

THIRTY-SIX PAGES this issue. Four pages above the previous high water mark. The FLORIST has not yet attained its growth. It is still on the upward move.

EASTER comes early this year, April 6. Are you going to strike it with a good crop of bloom?

Catalogues Received.

Webster Bros., Hamilton, Ont., plants and seeds; R. W. Hargadine, Felton, Del., plants; Edwin Fewkes & Son, Newton Highlands, Mass., chrysanthemums; C. Hennecke & Co., Milwaukee, Wis., flower pots, vases, etc.; Webster & Co., Centralia, Ill., nursery stock; C. P. Dietrich & Bro., Maysville, Ky., plants and seeds; C. E. Allen, Brattleboro, Vt., seeds and plants; J. Palmer Gordon, Ashland, Va., plants; Paul Butz & Son, New Castle, Pa., trade list plants; The William H. Moon Co., Morrisville, Pa., nursery stock; E. Bonner & Co., Xenia, O., plants; Schlegel & Fottler, Boston, Mass., seeds and plants; W. L. Swan, Oyster Bay, N. Y., plants and seeds; Germond & Cosgrove, Sparkill, N. Y., trade list roses; John Saul, Washington, D. C., plants; same, roses; Frank B. Smith, Danville, Ill., chrysanthemums; H. W. Williams & Sons, Batavia, Ill., plants; same, labels, boxes, etc.; V. H. Hallock & Son, Queens, N. Y., plants and bulbs; Selover & Atwood, Geneva, N. Y., nursery stock; P. J. Beckmans, Augusta, Ga., plants; Chas. N. Woodruff, Macon, Ga., plants; P. Philp, Toulon, France, bulbs.

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tions always on hand. Return telegrams sent
immediately when unable to fill orders.AUCTION SALES OF PLANTS SPRING AND FALL
Mention American Florist.

Wholesale Markets.

Cut Flowers.

	BOSTON, March 10.
Roses, Bon Silene	\$2.00 to \$5.00
" Perle, Sunset	5.00 to 6.00
" Gontiers, Niphetos	4.00 to 5.00
" Mornet, Bride	6.00 to 8.00
" La France, Wootton	8.00 to 10.00
" Jacq, Hybrids	10.00 to 25.00
Carnations, short	2.00 to 3.00
Carnations, long	2.00 to 3.00
Violets, Narcissus	4.00
Isidella, Tulips	5.00
Violets	50 to 75
Smilax	15.00 to 20.00
Callas	8.00 to 12.00
Harrisii	8.00 to 10.00
Mignonette	1.00 to 3.00
Heath	3.00 to 5.00
Adiantum	1.50
Farfengue	5.00
Asparagus plumosus	50.00

PHILADELPHIA, March 10.

Roses, Am. Beauty	\$15.00 to 25.00
" Hybrids	25.00 to 50.00
" La France	8.00 to 12.00
" Mornets, Brides	8.00 to 10.00
" Cousins, Wattevelles	8.00 to 10.00
" Jacq	10.00 to 15.00
" Gontiers	5.00 to 6.00
" Bennets	5.00 to 8.00
" Perle, Niphetos	8.00 to 10.00
Carnations, long	1.50 to 2.00
Carnations, short	1.00 to 1.50
Violets	3.00 to 4.00
Violets	50 to 75
Romans, narcissus	3.00 to 5.00
Tulips	3.00 to 5.00
Smilax	15.00 to 20.00

NEW YORK, March 10.

Roses, Bon Silene	\$3.00
" Perle, Niphetos	3.00 to 4.00
" Mornets, Brides	6.00 to 8.00
" Cousins, Wattevelles, Bennets	8.00
" Roses	10.00
" La France	8.00 to 10.00
" Beauties	25.00 to 50.00
" Jacq	15.00
Smilax	25.00 to 35.00
Carnations, long	2.00 to 3.00
Romans, narcissus	4.00
Violets	3.00
Tulips	4.00 to 5.00
Harrisii	15.00

CHICAGO, March 12.

Roses, Perle, Niphetos	\$4.00 to \$5.00
" Gontiers	4.00 to 7.00
" Bon Silenes	3.00 to 4.00
" Mornets, La France	6.00 to 8.00
" Brides	8.00 to 10.00
" Am. Beauties	18.00 to 40.00
" Jacq	12.00 to 18.00
" Bennets, Dukes	6.00 to 8.00
Carnations, short	1.50
Carnations, long	1.00 to 1.50
Smilax	18.00
Violets	.75 to 1.00
Valley Romans	4.00 to 5.00
Tulips	4.00 to 6.00
Callas, Harrisii lilies	12.50 to 15.00

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our business. We therefore claim that we are
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the West.OPEN DAILY: { Week days till 9 P. M.
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Extra designs made to order. Write for price list.

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CUT ROSES AT WHOLESALE.

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sons. All packages delivered on trains, thus
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Code when ordering by telegraph. For prices, etc.,
Address,

J. L. DILLON, BLOOMSBURG, PA.

Steam Heating.

Will some of the readers of the FLORIST who are using steam please state how many hours they can leave the apparatus at night without attention? I put in steam in part of my houses last fall, and have been obliged to keep a man to attend to it at night. It was claimed that it would run eight hours without attention, and I would like to know whether other florists have found it safe to do this.

JOHN RALPH.

Saratoga Springs, N. Y.

100 per cent off.

It is not always the outsider who wants the earth. A florist recently sent in a list to be priced, with the appalling announcement that "Catalogue men always throw off 100 per cent on list prices." Bcd.

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NEW CHRYSA NTHEMUM "Nymphaea." A decided novelty. Form and fragrance of Pond Lily. Fine for florists' use. A no the prize de la revue of older varieties. Send stamp for plate of "Nymphaea," and Catalogue. H. W. HALE, Ridgewood, N. J.

NEW CHRYSA NTHEMUM ADA SPAULDING Choicest Foreign and American Novelties warranted true to name; Selected Hybridized Seed, 25c. per packet. Tubes, roses, double and single, for propagation. Send stamp for plate of "Nymphaea," and Catalogue. T. H. SPAULDING, Orange, N. J.

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Mention American Florist.

FERNS. FERNS. FERNS. CALDWELL'S Alabama Fancies. Eastern Fancies, Daggers, Polypodium. In assortment; or otherwise, per single thousand, \$2.00; \$500 \$5.00; \$500 \$7.50. Express charges prepaid to any address.

**CALDWELL, THE WOODSMAN,
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	Per 100
Asclepias tuberosa, fine.....	\$4.00
Lobelia cardinalis, fine.....	5.00
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Beverly broom, strong.....	5.00
Virginia Creeper, strong.....	5.00
Finest sorts Delphinium and Aquilegia, Hem- erocallis fulva, Hibiscus, Lily of the Valley, clumps, Flatcordon, White Terrestrial Pea, Sabbatia, Viola cucullata.....	4.00

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Waterer's Novelties for 1890.

President Harrison, Mrs. Charles Dissel, Edwin
Lonsdale, Twilight, Mrs. Frank Clinton, Reward,
Model, White Cap, Gipsy, Miss Minnie Wannan-
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Waterer's Last Year's Set.

Excellent, Mrs. W. K. Harris, T. C. Price, Violet
Rose, Miss Anna Hartshorne, Wm. Dewar, Ivory,
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Choice Seedlings raised
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Mrs. Benjamin Harrison, pearl white
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AURIOLE, Silvery straw color.

Special Prize at Fogg, Nov. 1889.

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Chinese White, Purite, the most profitable for
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be grown in succession from early fall till late in
spring. \$4.00 per 100.

CANNAS—Dry, Standard var. \$2.50 per 100.
GERANIUMS—Best Bedding var., Crimson and
Scarlet, from 3-inch pots, \$4.00 per 100.

COLEUS—Best Bedders, Verschaffeltii, Golden
Bodder, Firebrand, Chicago Bedder, J. Goodie and
other best var., from 2 1/2-in. pots, \$2.00 per 100; \$15.00
per 1000. CASH WITH ORDERS.

W. G. RISELE,

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MARCH OFFERS.

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Primula Obconica, fine young plants.....	\$4.00
Chinese, fine strain, fringed var.	4.00
Begonia Pink Perfection, free bloomer, extra.....	5.00
Sutton's White Perfection, best white.....	4.00
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" " Metallica.....	4.00
Gilsoni, double.....	4.00
Geranium Single Grant.....	10.00
" Sara Sloan, crimson scarlet, ext. bedder.....	5.00
Blanch Perfection, new white variety from England.....	8.00
" Evening Star, gl. white with pink eye, beautiful foliage, the model geranium.....	6.00
" Golden Dawn, yellow shadings.....	5.00
Chrysanthemum Mrs. Humphrey, white.....	8.00
" Mrs. G. Barr, white.....	5.00
" Golden Rod, yellow.....	5.00
" Hon. J. Welch, dark lake.....	4.00

when first opening, have form and fragrance
similar to the pond lily. \$4.00 per 100.

The above varieties are among the finest for cut
flowers or pot plants.

Carnation Florence, this will produce more long
stem plants than any other scarlet.

" **Daisy**, white, a fine business pink,
strongly fragrant.

" **Marguerite**, the new French summer
flowering pink, mixed.....

Bouvardia Texas, Cleveland, new crimson scar-
let, old plants for root propagating, limited
quantity only.....

Buchera, Amazonica, medium bulbs.....

Salvia, I. Clavenan, similar to Splendens in
flower but more dwarf and two weeks earlier
in blooming, a fine novelty.....

Glechoma, H. var. new basket plant.....

Alyssum, new double dwarf Tom Thumb.....

Centaurea Gymnopus, 3-inch pots.....

Alternanthera, two varieties.....

Echeveria, 2 to 3-inch diameter.....

Fuchsia Venus Victorix, the odd colored sort.....

Carl Hatt, the winter bloomer.....

Assorted fine varieties.....

Heliotrop Mrs. Burgess, finest sort for flor-
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Sage, Holt's Mammoth, we were the original
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surely genuine.....

Aster, Zirkigebel's White, very early and pure
white, best sort for florists' use, seed is direct from
headquarters, stock 15 cts. 50 cts. 60 cts. 80 cts. per 1000.

Above prices are for plants by express, if by mail
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of a kind and no order filled for less than \$2 (seed
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ELLIS BROS., Keene, N. H.

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Achyranthus, 2 varieties.....	Per 100
Abutilons.....	\$3.00
Agaratum, 2 best varieties.....	\$4, \$6 and 8.00
Alternanthera aurea nana.....	\$3 and 4.00
" Tricolor.....	2.00
" Versicolor.....	2.50
" Paronychioides.....	3.00
" Spectabilis Variegata.....	3.00

foliage pink.....

Amayyllis Johnsoni, large flowering,
bulbs 50 cts. each.

Begonia, 40 flowering var. \$4, \$6, \$8, 25
Begonia Rex, assorted.....

Crotons, assorted.....

Calla, spotted leaf Richardai Alba
Maculata.....

Cactus, Lobster.....

Carnations, assorted.....

Cannas, assorted.....

New French.....

seedlings.....

Cuphea (Fire Cracker plant).....

Coleus, 20 best varieties.....

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Dracena Indivisa.....

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Rosea.....

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Feverfew Little Gem.....

Fuchsia, double and single.....

Storm King.....

Phenomenal.....

Mrs. E. G. Hill.....

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Gladiolus, of sorts, Red.....

Light.....

Named.....

Geraniums, assorted.....

Scented, of sorts.....

Lady Washington, sorts, \$6, 8.00

Moon Flowers.....

Hibiscus, assorted.....

Hydrangea, assorted.....

Impatiens Sultana.....

Lemon Verbenas.....

Lantanas, of sorts.....

Montbretia Crocœmaeflora.....

Oxalis, assorted.....

Perennial Phlox, of sorts.....

Nasturtium, Darkness, double red.....

Salvias, assorted.....

Roses, of sorts, Teas.....

H. P......

Pilea Arborea.....

Vincas, trailing sorts.....

Verbenas, of sorts.....

Wax Plants.....

Ferns, named kinds, 4-in. pots.....

" 2 1/2 & 3-in. pots, 80
Hardy Plants, of sorts.....

Orchids, of sorts, \$1.00 to \$3.00 each.

We have many varieties not mentioned
here. Also Bedding Plants in great var-
iety. Not less than three plants of a kind
sent. No order filled from this list for
less than \$3.00.

TRADE LIST AND CATALOGUE FREE.

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KANSAS CITY, MO.

TRADE LIST OF E. HIPPARD,

YOUNGSTOWN, OHIO.

Tea Roses, 2-inch pots	Per 100 \$ 3 00
Tea Roses, 3-inch pots	4 00
Polyantha Roses, 3 inch pots	4 00
Climbing Roses, 2 yr. open ground,	6 00
Moss Rosea, 2 yr. open ground,	10 00
Fuchsias, Hill, Phenomenal, White House, Snow Storm, Nancy	3 00
Fuchsias, leading sorts, strong	2 00
Geraniums, new sorts of 1889	5 00
Geraniums, best flowering sorts	3 00
Geraniums Ivy, of best sorts	3 50
Geraniums Ivy, new sorts of last yr.	5 00
Begonias, best flowering sorts	4 00
Begonias, Rex varieties	5 00
Carnations, best forcing sorts	3 00
Cannas, mixed sorts	2 50
Gladioli, fine light colors	2 00
Gladioli, light colors	1 50
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Anthemids Coronarium, fl. pl.	3 50
Ageratum and Achyranthus of sorts	2 00
Amaryllis Formosissimus	5 00
Anthericum, 2 sorts variegated	5 00
Asparagus Tenuissimus	2 50
Begonias Tuberous Rooted	12 00
Bouvardias Elegans and Davisonii	3 50
Caladium Esculentum, 1st quality	6 00
Caladium Esculentum, 2nd quality	3 50
Callas, 4-inch pots	5 00
Clerodendron Balfouri	5 00
Chrysanthemums, the best sorts	2 50
Cyclamen Persicum, flowering bulbs	2 00
Crape Myrtle, pink, 2 years	4 00
Cyperus Alternifolius	3 00
Cuphea Platycentra & Hillfieldiana	2 50
Eucharis Mastersii, best flowering	20 00
Eucharis Sandersii, very free	20 00
Eucharis Amazonica and Candida	10 00
Feverfew, dwarf white	3 00
Funkia, fine variegated	5 00
Fabiana Fimbriata	2 00
Hibiscus of sorts	4 00
Hyacinthus Candicans	2 50
Helianthus Multiflorus	2 00
Hydrangeas 5-inch pots	10 00
Ivy English and German	2 00
Lemon Verbena, Lions Tail	2 50
Moon Vine, true sort	3 50
Jasmine Grandiflora & Revolum	3 50
Jasmine Gracillimum	4 00
Libonia Floribunda & Penhosiensis	3 50
Lantanas, of best sorts	3 50
Linum Trigium	2 50
Maderia Vine	1 00
Smilax, Heliotropes of sorts	2 00
Oleanders, double pink	4 00
Nierembergia Gracilis	2 50
Pandanus Utilis, 4-inch pots	20 00
Pomegranate Jas. Vick	4 00
Palms Lantania Borbonica	8 00
Palms Seafortia, 2 ft. high	25 00
Poinsettia Pulcherrima, 5 inch pots	20 00
Phlox Perennial, best 12 sorts	5 00
Pansies Bugnots best strain	1 00
Petunias, best double sorts	4 00
Richardia Maculata, strong bulbs	3 00
Pinks, florists	3 00
Plumbago Capensis	3 50
Ruellia Formosa and Macrantha	4 00
Solanum Jasminoides	2 50
Salvia, 4 sorts, Stevia of sorts	2 50
Streptosolen Jamesonii	2 50
Tritoma Uvaria, strong plants	5 00
Verbenas Mammoth strain	2 50
Vincas Major var. and Harrisonii	3 00
Honeysuckles, 2 yr. open ground	10 00
Wistaria Magnifica	8 00
Florists Flower Seeds in quantity, very cheap. Write for prices.	

WRITE FOR PRICES OF THE BEST VENTILATING
MACHINERY IN USE; JUST PAT'D DEC. 10th, 1889.
The only Certificate at Buffalo Awarded Aug. 1889.

SPECIAL OFFER for PALM SUNDAY and EASTER.

ABIES NORDMANNIANA, one of the finest ornamental evergreens, perfectly hardy, handsome plants, about 1½ feet high, with balls ready for immediate potting. Per 100, \$60 00; per dozen, \$9 00; \$1 00 each.

CLEMATIS JACKMANII, and other large flowering varieties, in bud, pot-grown. Per dozen, \$10 00; \$1 00 each.

CYCAS REVOLUTA LEAVES, (fresh cut), can be supplied at short notice, at the following prices: EXTRA SIZE, (3 ft. and upward), per pair, \$2 00; per doz. \$10 00. ORDINARY SIZE, (2½ to 3 ft.), " \$1 50; " \$7 50.

CABBAGE PALM LEAVES, in bud, 3½ to 5 feet long, as used in churches on Palm Sunday. Per 100, \$10 00; bundle of 25, \$3 00.

—Large, 5 to 7 feet long, for decorating purposes, per 100 \$12, bundle of 25, \$4.

FAN PALM LEAVES, 2 to 3 feet long, per 100, \$4 00; per dozen, \$1 00.

SOUTHERN LONG NEEDLE PINES, 3 to 5 feet long, very handsome, pair \$1; doz. \$5.

FLORIDA MOSS, per pound 25 cents; per barrel \$3 00.

NEW PAMPAS PLUMES, finest quality and bushy.

	Per 100	Per 100	Per Doz.
NATURAL, extra size, 24 to 38 inches long	\$70 00	\$8 00	\$1 50
“ first size, 26 to 32 inches long	60 00	7 00	1 25
“ second size, 20 to 26 inches long	50 00	6 00	1 00
DYED, in various beautiful colors, extra size only		12 00	2 00

MILWEED BALLS, (Fairly Flowers).

	Per 100	Per 100	Per Doz.
Extra quality, pure white	10 00	1 25	
Second quality, cream white	8 00	1 00	
In various beautiful colors	14 00	1 75	

NEW CAPE FLOWERS, large flowers.

	Per lb.	Per 10 lbs.	In case lots
Short stems, extra selected, pure white and silky	\$ 75	\$7 00	\$ 60
“ prime quality, white	60	5 00	45
Long stems, in bunches of about 50, finest quality, per 1000; 900; 800; 700			\$7 50.
“ in various colors mixed, per pound \$1 25			

BROMUS BRIZEFORMIS, bleached \$ 50 \$4 50

ERIANTHUS, resembles Pampas grass, natural 60 5 50

“ in assorted colors 1 00 9 00

EULALIA PLUMES, natural, per 100, 50c.; per 1000, \$4 00.

LYCOPodium, dyed dark green 30 2 50

OSEOLA PLUMES and SILVER GRASS, natural 50 4 00

“ “ “ in assorted colors 1 00 9 00

SEA OATS, natural 15 1 40

“ in assorted colors 40 3 00

STIPA PENATA, (Feather Grass), natural 60 5 50

“ in assorted colors 1 00 9 00

WHEAT, Italian, bleached, finest quality, assorted sizes 60 5 50

IMMORTELES, natural, yellow, prime quality 100 Pouches, Per Doz. Each.

French dyed, purple, white, cardinal, cherry red, pink, etc. \$14 00 \$2 00 \$ 20

German dyed, purple and white 22 00 3 00 30

GRASS BOUQUETS, made of the finest imported and domestic grasses, natural and dyed:

	Per Doz. Each.		Per Doz. Each.
No. 1, 8 in. high	\$1 00 \$ 15	No. 5, 22 in. high	\$4 00 \$ 45
No. 2, 10 in. high	1 50 20	No. 6, 25 in. high	5 00 60
No. 3, 15 in. high	2 00 25	No. 7, 28 in. high	6 00 75
No. 4, 18 in. high	3 00 35	No. 8, 30 in. high	8 00 1 00

MAKAT BOUQUETS, made of palm leaves, grasses, dried flowers, etc.:

No. 1, 24 in. high, \$12 per doz., \$1 25 each; No. 2, 32 in. high, \$18 per doz., \$2 each; No. 3, 40 in. high, \$24 per doz., \$2 50 each.

WREATHS, of dark green moss, plain:

Diameter in inches,	9	11½	12½	14	15½	17	19
Price, each,	15c.	20c.	25c.	35c.	50c.	75c.	\$1 00

WREATHS, of dark green moss, with everlasting flowers and grasses, very effective:

Diameter in inches,	9	11½	14	15½	17
Price, each,	35c.	50c.	75c.	\$1 25	\$1 75

METAL WREATHS, CROSSES, ETC., plain and with porcelain flowers, in large assortment, as per special list, mailed on application.

For other Supplies, Bulbs, Seeds, see my Spring List.

Estimates on DUTCH and FRENCH BULBS, NURSERY STOCK, etc., for FALL IMPORTATION, cheerfully furnished.

TERMS, NET CASH. Necessary packing and cartage (if ordered by freight) charged at cost.

ADDRESS.

J. A. DE VEER,
183 Water Street, NEW YORK.

WILL REMOVE TO 18 BURLING SLIP ABOUT MAY 1ST.

	Per 100	Per 1000
Heliotrope rooted cuttings	90c.	\$7 50
Alternanthera aurea nana	60c.	5 00
Coleus Verschaffeltii, etc.	90c.	7 50

(No Golden Bedders.)

JOHN J. CONNELLY, Bryn Mawr, Pa.

SMILAX WANTED.

Parties having any for sale please write us at once.

THE WISCONSIN FLOWER EXCHANGE,
Milwaukee, Wis.

CHINESE PRIMROSE SEED.

Trade packets put up specially for Florists. Ten best selling kinds. 40 seeds.

Price per pkt. \$1 00. Special rates per 1000 seeds.

Address **HENRY S. RUPP & SONS,**

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CHRYSAETHUMUS.

Best New and Old for florists' use. Send for trade price list.

FRANK B. SMITH, box 1081, Danville, Ill.

SPARTANBURG, S. C.

Established in 1852.

BLOOMINGTON PHOENIX NURSERY,

SIDNEY TUTTLE & CO., PROPRIETORS.

Bloomington, Illinois.

ROSES, 2 years, 2-3 feet.....	Per 100 \$ 8 00
Eva Corrine, Russell's Cottage, Balto. Belle, Prairie Queen.	
" From 2 inch pots.....	4 50
Mme. Masson, Mme. Chas. Wood, La Reine, La France.	
" Mme. Plantier, 2 yrs, strong, 2-3 ft.....	10 00
" " " medium	8 00
" Moss, 2 yrs, assorted, dormant, 2 3 ft.....	14 00
" Perle des Jardins, strong, 4-inch pots.....	12 00
" " " 3 inch pots.....	8 00
" " " 2½ inch pots.....	4 00
" Niphetos, strong, 4 inch pots.....	12 00
" " " 3 inch "	6 00
" " " 2-inch "	4 00
" Marechal Niel, strong, 6-inch pots	14 00
" " " 4 inch "	12 00
" " " 3-inch "	6 00
" " " 2½-in. pots (\$35 per M)	4 00
" Bride, 2½ inch pots.....	5 00
" Bou Silene, 3 inch pots.....	6 00
" Solfaterre, 3 inch pots.....	7 00

ROSES, Eva Corrine, 2½-inch pots	Per 100 3 00
" Prairie Queen, 2-inch pots	3 00
Ampelopsis Veitchii, 3 ft.....	8 00
" " 2 ft.....	6 00
" " 1 year, small.....	3 00
Aucuba Japonica Variegata, 4 inch.....	14 00
Ficus Elastica, 4-inch pots.....	\$4 00 per doz
Clematis, Jackmanii, 4-inch pots.....	25 00
" Lucie Lemoine, double white, 4 inch pots.....	30 00
" Duchess of Edinburgh, 4 inch pots.....	30 00
" Heuryii, 4-inch pots	25 00
" Coccinea, Dormant.....	8 00
" Flamula, Dormant.....	5 00
" Viticella, Dormant.....	5 00
" Vitalba, Dormant.....	4 00
Carnations, Silver Spray, strong, 2 inch pots.....	3 50
Begonia Sem. Gigantea Rosea, 4 inch pots.....	12 00
Dielytra Spectabilis.....	6 00
Chrysanthemums, large assortment.....	4 00
Paeonias, assorted.....	12 00
Tuberose, fine, strong No. 1 Bulbs.....	2 00

SIDNEY TUTTLE & CO., BLOOMINGTON, ILLINOIS.

GEO. JACKMAN & SON

Bag to offer a large and well grown
Stock of the following:

ROSES—In choice and exhibition varieties.
RHODODENDRONS—Of the best named sorts, and
Hybrid Seedlings well set with buds.
AZALEAS—Good named sorts, also Mollis and Pon-
ticum set with buds.
CONIFERS—In large collection.
SHRUBS—Ornamental and Flowering.
FOREST TREES—Of sorts, all grown by thousands.
CLIMBERS—In variety, including their celebrated
Clematis.

G. J. & Son have also to offer a

NEW CLEMATIS

MRS. BARON VEILLARD,

a handsome variety of the Jackmanii type.
It is a vigorous grower, bearing a profu-
sion of distinct light lilac-rose flowers, of
medium size, from July to October.

PRICE, 90¢ PER DOZEN.

CATALOGUES FREE ON APPLICATION

TERMS—Cash with order, or satisfactory trade
reference from unknown correspondents.

Woking Nursery, Woking, England.

IRISH AND SWEDISH JUNIPERS.

ALL TRANSPLANTED. Per 100 Per 1000	
8 to 12 inches	\$ 5 00 \$30 00
12 to 18 inches	8 00 50 00
18 to 24 inches	10 00 60 00
24 to 36 inches	12 00 75 00
36 to 48 inches	15 00 100 00
Rooted Cuttings in May	2 00

JOSEPH HEINL, Florist and Nurseryman,
JACKSONVILLE, ILLINOIS.



TRY DREER'S GARDEN SEEDS

Plants, Bulbs, and
Request. They are the
best at the lowest prices.
TRADE LIST issued quar-
terly, mailed free to the
trade only.

HENRY A. DREER,
Philadelphia.

ZIRNGIEBEL'S IMPROVED STRAINS

—) or (—

White Asters, Giant Market and Fancy
Pansies, Perpetual White Stocks,
Giant White Candytuft.

Also a limited stock of SCARLET ASTERS (La
Brillante), and the blue variety.

Trade packet of any of the above at \$1 00 each.
(Our White Aster, of the Multiflora class, is an
improved Victoria, earlier and twice as prolific.)

DENYS ZIRNGIEBEL,
NEEDHAM, MASS.

NEW ABUTILON ERECTA

Differs from all Others

FLOWERS STAND UP ERECT!

Color, a Beautiful Orange Pink.

Send for Trade List containing full description.
Orders booked and filled in rotation after March
1st. Price, 35¢ each; \$3 per doz.

PRIMULA OBSCURICA—
We must have room, and offer 2½-in. pot plants, at
50¢ per doz.; \$3 per 100. 3 and 3½-inch pot
plants, \$1 per doz.; \$8 per 100.

SEED—(crop 1889), per pkt., 1000 seeds, 75 cts.

PRIMULA FLORIBUNDA—
2-inch pot plants, 60¢ per doz.; \$4 per 100.

SEED—(crop 1889)—
Per pkt., 100 seeds, 25¢; 1000 seeds, \$2.00.

I. N. KRAMER & SON, MARION IOWA.

When writing, Mention American Florist.

Choice Stock Cheap.

Geranium, in 20 choice varieties, 2½-in.....	Per 100 \$3 00
Geranium White Swan, 2½-in.....	5 00
Ice Geranium, 2½-in.....	4 00
Single Primroses, best strain 2½ and 3½-in.....	4 00
Primula Obconica, 2½-in.....	4 00
Smilax, strong, 2½-in.....	1 50
Moon Vines, true large flower, 2½-in.....	4 00
Abutilons 4 choice varieties, 2½-in.....	4 00
Lantanas, 4 choice varieties, 2½-in.....	4 00
Double Alyssum, 2½-in.....	2 50
Heutzia Crenata, 2½-in, dormant.....	2 50
Begonia rubra alba, strong, 3 in.....	5 00
Coleus G. Beeder, J. Goode, Varieg. & L. Beck.....	3 00
Chrysanthemums, fine varieties, 2½-in.....	3 00
Heliotropes, best varieties, 2½-in.....	5 00

40-25 or 50 of any of the above at the 100 rate

Address **N. S. GRIFFITH,**

JACKSON CO. INDEPENDENCE, MO.
(Independence is well located for shipping, being
5 miles east of Kansas City.)

THE WM. H. MOON CO.

MORRISVILLE, WISCONSIN, PA.
Nurserymen and Landscape Architects,
offer an immense stock of all kinds of
FRUIT and ORNAMENTAL TREES, SHRUBS and VINES.
A 32-page descriptive illustrated catalogue free.

Washington.

The Florists' Club of Washington entered upon the second year of its existence last evening, having a membership of thirty-three. The annual dues were reduced from \$3 to \$1. By the kindness of Mr. Wm. R. Smith, Superintendent of the Botanic Gardens, the club has been afforded a well adapted meeting room free of charge. Money was accumulating, and the \$3 rate bore rather heavily where several members of one family or firm belonged to the club, so it was deemed wise to make reduction for the present at least.

The club is largely composed of florists who have stands in the famous Centre market of this city. Their business has long since outgrown the accommodations the market company can furnish them in the main buildings, where they are interspersed among all sorts of produce dealers. Be it known that fully half of the flowers of the city are sold at this same Centre market. Very naturally the subject having the greatest interest for the club at present is the agitation of a scheme to secure new and suitable accommodations, if possible, still in connection with Centre market. The discussion is gradually maturing plans for a beautiful iron and glass floral market directly upon Pennsylvania avenue in front of the market which will furnish room for all now in business in this vicinity and give room for extension, beside quarters for seedsmen and horticultural belongings. They have a big job on their hands to secure this privilege of so choice a location, but believe they can accomplish the undertaking.

Robert Bowdler was elected president for the ensuing year, P. Gages, vice-president, Wm. S. Clark, secretary (re-election), Eugene Cadmus, corresponding secretary, and Adolph Goode, treasurer. C.

OUR NEW TRADE DIRECTORY is now ready. It gives a complete and accurate list of the florists, nurserymen, and seedsmen of the United States and Canada, designating the special branch of the trade each one is engaged in. Price \$2.

TO GIVE the FLORIST your fullest support, confine your orders as far as possible to those who advertise in its columns.

GEO. THOMPSON & SONS

Offer to the trade the following stock in prime condition:

Allamanda Hendersonii, 2½-in pots.	\$4 00
Allamanda Nerifolia	5 00
Hibiscus, six fine varieties	3 50
Jasminum Revolutum, strong	4 00
Papaver Orientale	4 00
Coleus, fine collection	3 00

We also offer the following Roses from 2 inch pots:

Lamarque, Coquette de Lyon	4 00
Bougere, Cath. Mermet	4 00
Compt de La Barth, Arc Duke Chas.	4 00
Chrysanthemum, Nymphaea	6 00
Lemon Scented Geranium, per doz.	75

We also offer twenty of the newest and best Chrysanthemums, besides a list of the standard old sorts. Send for our wholesale price list, which contains Roses and all other plants not named in this list. Address,

GEO. THOMPSON & SONS,
LOUISVILLE, KY.

TREES

Best sorts, New and Old. Fine blocks of home-grown 4 & 6' Pear, Plum, Peach and Apricot, on peach, on plum and Mariana root. Cherry, Quince, Apple and Juniper. Also, Root Grafts—Every thing—No larger stock in U.S. No better. No cheaper.
PIKE CO. NURSERIES, LOUISIANA, MO.

AMARYLLIS AULICA PLATYPALALA, a rare winter blooming variety for cut flowers, \$1 00 each.

“DEFIANCE, robust grower, easy and continuous flowerer, very handsome flower, 50 cents each.

AMPELOPSIS VEITCHII, strong 1 year	1 00	\$ 6 00
ARUNDO DONAX VARIEGATA	2 00	15 00
CANNAS, New Dwarf French	3 00	20 00
CHRYSANTHEMUM, Mrs. Alpheus Hardy		10 00

450 varieties always in stock.

We are short of E. H. FITLER and MRS. W. K. HARRIS, please offer us these two sorts.

MR. H. CANNELL	we call one of the very best yellows for cut flowers.	20 cents.
EDOUD AUDIGUIER	This is a remarkable variety little known. EARLY, rich velvet purple violet. Fine for cut flower.	20 cents.
GERANIUM LA FAVORITE	best double white	\$6 00 per 100.
HARDY PHLOX	100 best varieties. Our selection	10 cents.
NEW ROSE CLOTILDE SOUPERT		\$15 00 per 100

V. H. HALLOCK & SON,
QUEENS, N. Y.

J. M. THORBURN & CO.,
15 John Street, NEW YORK.

FLORISTS should order at once for
SUMMER AND AUTUMN DELIVERY:

LILIUM HARRISII, ROMAN HYACINTHS,
LILY OF THE VALLEY PIPS, &C.

Prices on application.

R. VAN DER SCHOOT & SON,

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LARGEST GROWERS OF

HYACINTHS, TULIPS, NAR-

CISSUS, SPIRÆA, LILIES

OF THE VALLEY, ETC.

Headquarters for Forcing Bulbs. Wholesale Importers should write us for prices.

Mention American Florist.

AUCTION SALES

of Plants, Bulbs and all Horticultural Spring Stock will commence

IN MARCH.

We solicit the support of the Trade. Parties wishing to consign, will please advise us timely.

AUGUST RÖLKER & SONS

Horticultural Warehouse,

No. 136 W. 24TH ST., NEW YORK.

Rooted Cuttings from young healthy plants of Golden Bedder, Verschaffeltii, Midnight, Rocket and 20 other good bedding varieties at \$6 per 1000, 70¢ per 100; Golden Bedder alone 80¢ per 100. Ampelopsis Veitchii 2½ and 3-inch pots, strong, \$1.50 per 100. Tuberosa Bulbs, No. 1 extra \$10 per 1000; No. 2 \$5 per 1000. Small bulbs, \$1 per 1000. Caladiums Esculentum, 2 to 3-inch \$5.00 per 100, 1 to 2-inch \$3.00 per 100. Canna, assorted, \$3 per 100. Also a general assortment of Nursery and Greenhouse stock.

W. P. BRINTON, Christiana, Pa.



Trade Pkt
TUBEROUS BEGONIAS (SINGLE) \$1.00
PRIMULA OBCONICA, - 1.00
GLOXINIAS, - 1.00
6 Packets, \$5.00.

FISHER BROS. & CO.,
NEW ENGLAND NURSERY. MONTVALE, MASS.

WINTER BLOOMING

* AZALEAS *

BEAUTIFUL SHAPED PLANTS. ALL SIZES.

GABRIEL MARC & CO.,
Queens Co. WOODSIDE, L. I., N. Y.



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BY

Seedsmen

Kalamazoo Perfection Celery Seed.

Best Variety Grown.

Pound \$10. Ounce 75 cts. Packet 25 cts.

Celery plants ready May 1st, at \$3 per 1,000. "Kalamazoo Celery Culture" Complete, 50 cts. Outside plants ready June 30th. Write for prices.

G. VAN BOCHOYE & BRO.,
Kalamazoo, Mich.

Holland Bulbs.

HYACINTHS, TULIPS, NARCISSUS, LILIES, ETC.

We should like now to get into Correspondence with Florists and Importers of Bulbs, about orders for Holland Bulbs.

References as to Quality of our Bulbs, etc., to several United States Florists and Seedsmen.

SEGERS BROTHERS,
WHOLESALE BULB GROWERS,
LISSE, near Haarlem, HOLLAND.

SPECIAL OFFER —OF— SEASONABLE BULBS

We are the largest growers in the country of the following Bulbs and are in a position to give satisfaction both in quality and price. Small lots of all but Tuberoses can be sent safely and cheaply by mail.

BEGONIAS, TUBEROUS ROOTED,
VARIETIES IN COLOR
SCARLET, PINK, ORANGE,
WHITE, CRIMSON, YELLOW,
\$1.50 per dozen; \$12 per 100; \$100 per 1000.
Single Mixed varieties in all colors, \$1.25 per doz.;
\$10.00 per 100; \$80.00 per 1000.
Double Mixed varieties in all colors, \$4.00 per doz.,
\$30.00 per 100.

GLOXINIA Crassiflora Grandiflora,
In twelve distinct varieties, named, \$2 per doz.; \$12 per 100. In splendid mixture, all colors, \$1.50 per dozen; \$10.00 per 100.

CALADIUMS, Fancy Leaved Varieties
In 50 best and newest varieties, fine, well matured bulbs to name, \$2 per doz.; \$15 per 100; \$125 per 1000.

TUBEROSE, Pearl and Double,
First size, flowering bulbs, \$1.50 per 100; \$12 per 1000.

HENRY A. DREER, Philadelphia.
Mention American Florist.

Association Flora, Boskoop, Holland.
NOW ON HAND IN NEW YORK:

25,000 Dwarf budded Roses in sorts.
3,000 Rhododendrons in sorts.
3,000 Azalea Mollis and Pontica in sorts.
2,000 Clematis, extra strong plants.
Trees, Shrubs, Evergreens, Conifers, Pæonias and other herbaceous plants.
PLANTS FOR FORCING AND DECORATING.
Address **P. OUWERKERK,**
212 Fulton St., NEW YORK CITY.
Catalogue on application.

TO THE TRADE.

HENRY METTE,
Seed Grower and Merchant,
QUEDLINBURG, GERMANY.
(ESTABLISHED 1787.)

Will be pleased to quote special prices for garden, agricultural and flower seeds saved at his extensive grounds, which cover more than 4,000 acres.
Wholesale Catalogue free on application.

FOR SALE OR EXCHANGE.

Swanley White Violets, large clumps in bud and bloom..... \$1.00
" " Strong plants..... 2.00
M. Louise, good plants..... 2.00
Fine large strain Pansy plants, out of seed bed 1.00
Transplanted in bud and bloom..... 2.25
A large lot of Erantibus Havenne grass; also Eulalia Zebrina in clumps or plants, from 5c to 34c each.
We want Fuchsias E. G. Hill and Storm King and Roses, in exchange. Cash must accompany orders from unknown parties.

Address **M. TRITSCHLER & SONS,**
HYDE'S FERRY GARDENS, NASHVILLE, TENN.

Florist Bulbs and CUT FLOWERS.
THE WISCONSIN FLOWER EXCHANGE,
133 Mason Street, MILWAUKEE, WIS.

NO "SYNDICATE" BULBS!

LOUIS BREMOND FILS,
Grower of ROMAN HYACINTHS and OTHER FRENCH BULBS,
OLLIOULES, VAR, FRANCE.

JANUARY, 1890.

TO THE TRADE:

I am informed that Mr. C. Mertz, who was a clerk in my employ until August, 1889, and who resides in Paris now, is making offers of Roman Hyacinths and other bulbs, on behalf of a "Syndicate." I hereby announce to my customers that I have nothing in common with this so-called "Syndicate," and that I disclaim all connection with that or any other organization.

My bulb crops for next season are in a flourishing condition. I can furnish you with any quantity you may require, at very favorable prices, which may be obtained by addressing

Mr. J. A. De Veer,
183 WATER ST., NEW YORK.
MY SOLE REPRESENTATIVE FOR UNITED STATES AND CANADA.

Or, Yours Respectfully,

LOUIS BREMOND FILS.



I AM NOW RECEIVING
Lily Auratum, Rubrum, Longiflorum,
AND OTHER LILIES.

Fine stock for coming season. Also Fresh Florists' Seeds, such as, VERBENA, CENTAUREAS, CHOICE PANSY, LOBELIA, SMILAX, SWEET ALYSSUM, TORENIA, NEIREMBERGIA, VINCA, &c.

JAMES KING, Seedsman,
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TUBEROSE BULBS.

100,000 Tuberosae Bulbs.
100 BALES DEER TONGUE or VANILLA.
Now Ready for Delivery.
Samples sent on application. Correspondence solicited. Address

SAMUEL BEAR, SR.,
P. O. Box 428. WILMINGTON, N. C.

CAPE COD PINK POND LILY

For price list, Plants and Cut Flowers, address the original cultivators,

Chipman Bros.,
SANDWICH, (Cape Cod,) MASS.

Hot Water in 2-inch Pipes.

In March 1 issue "A Beginner" asks the advice of some one who has used 2-inch pipe for hot water heating. We have used them to our sorrow. Have remodelled them twice, and next year we will tear them all out and use 4-inch pipes. Have tried 2-inch pipe for three years, and it has cost us \$3,000 to learn they are worthless. Some people claim they get hot quicker than 4-inch. Well, maybe they do, but, if so, they will also get cold quicker. Again, it is claimed because they get warm quick it requires only half as many 2-inch as 4-inch. We have found it takes twice as many 2-inch, and then it does not do the work. It requires a great deal more coal to heat 2-inch pipe than it does 4-inch. We would not use 2-inch another winter under any consideration.

ROBT. S. BROWN & SON.

Kansas City, Mo.

—In answer to "A Beginner," March 1, we have a rose house on John May's plan, 100x18 feet. Use the 2-inch pipe, on the high pressure plan. Heats quick, and there is a saving on fuel. Expansion tank should be located near the boiler at the highest point. An ordinary size barrel can be used as tank. We use 1000 feet pipe. This house would require 800 feet of 4-inch pipe.

WM. BLACKMAN & SON.

Evansville, Ind.



Any one with a cellar or stable can do it. Our pamphlet, "How to Grow Mushrooms," gives full instructions. Send for it. A trial brick of Mushroom Spore (enough to plant a space 3 ft. by 4 ft.) sent by mail, to any address for 22c. 10 lbs., by exp. for \$1.50. 50 lbs. for \$6. Our handsomely illustrated catalogue of Vegetable, Flower, and Farm Seeds, and all requisites for Farm, Garden, and Lawn, free to all.

JOHN GARDINER & CO. 21 North 13th St., Phila., Pa.

CHEAP STOCK FOR TEXAS FLORISTS

	Per Doz.	Per 100
Geraniums, 50 choice varieties.....	\$ 40	\$5.00
Scented Geraniums, 10 choice vars.....	50	4.00
Coleus, 30 choice vars.....	40	3.00
Chrysanthemums, 10 leading vars.....	40	3.00
Heliotrope.....	50	4.00
Moon Flower, true large.....	40	5.00
Ageratum.....	40	3.00
English Ivy, fine, 1 year.....	25	6.00
Palms, finest.....	40	3.00
Verbena, 20 leading varieties.....	40	3.00
Begonias.....	25	6.10
Fuchsias.....	50	4.00

Well grown plants in good condition. Cash with order. Send list of your wants and we will price them.

BAKER BROS., FT. WORTH, TEX.

Seedlings of Tuberous Begonias.
ONCE TRANSPLANTED.

A fine strain of single red, large flowers, ready in April.

By Mail, postpaid, \$3.00 per 100. By Express, in lots of 500, \$2.50, \$2.4 per 1000.

BRAUER & RICHTER,

McCONNELSVILLE, OHIO.

Tuberous Begonias.

Splendid strain, large flowers of one form, erect habit, very varied colors. Compact plants. Unsurpassed for Bedding and Conservatory.

Strong tubers, single, per 100, \$4.00 and upwards; double, per dozen, from \$3.00 to \$10.00.

ZOCHER & CO., Haarlem, Holland.

HANGING BASKETS.

12-inch..... per dozen, \$1.50

10-inch..... per dozen, 1.30

JASON B. ROACH, Minerva, Ohio.

L. A. CASPER,

Roses for Florists and Dealers in all sizes. Also a General Stock of Greenhouse Plants and Cut Flowers. Roses in 2-inch pots, \$4.00 per 100; \$3.50 per 1000. 2½-inch pots, \$6.00 per 100. 3-inch pots, \$8.00 per 100. 4-inch pots, \$12.00 per 100.

Perle des Jardins,
Niphotos,
Bride,
Bon Silene,
La France,
Catherine Mermet,
Safrano,
Papa Contier,
Isabella Sprunt,
Etoile de Lyon,
Duchess de Brabant,
Mme. Welch,
Mme. Lambard,
Louis Phillipe,
Agrippina,
Duchess of Edinburgh,
Wootton,
American Beauty,
Wm. Francis Bennett,
Including eighty-four other varieties.

HARDY ROSES in all sizes, from 3-inch pots up to 6-inch pots. Also dormant two year old stock.

L. A. CASPER, COUNCIL BLUFFS, IOWA.

PRIZE ASTER SEED.
NEW CROP.

Our strain of Truffant's Prize Aster has proven to be the most desirable and profitable sort for Florida use, either for pot culture or cut flowers. The colors are rich and brilliant. We have flattering reports from those who grew them in past seasons.

	Trade pkt. per oz.
White.....	50 \$3.00
Pink.....	50 3.00
Blue.....	50 3.00
Purple Violet.....	50 3.00
Scarlet.....	50 3.00
Crimson Ball.....	50 4.00
Mixed of all colors.....	50 4.00

PERFECTION BALSAM SEED

Extra Double White, trade pkt. 50c; oz. \$2.

For a complete list of Flower Seeds, please see Breer's Wholesale List to Florists—mailed to them only.

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PHILADELPHIA.

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VIOLETS. Swanley dbl. white, Marie Louise, Neapolitan. \$10 PER 1000.

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GERANIUMS. In double and single, Novelty and Standards, from 2½ and 3-inch pots. \$30 per 1000.

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PASSIFLORA. CONSTANCE ELLIOTT and COERULEA. \$50 per 1000.

ALYSSUM. Double White. \$10 per 1000.

ROSES. Fine Varieties and well grown. \$40 per 1000.

CHRYSANTHEMUMS. The cream of the finest Cut Flower varieties. \$40 per 1000.

PRIMULAS. Elegant plants in bloom; whites, pinks, reds. \$40 per 1000.

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FOREST CITY GREENHOUSE
ROCKFORD, ILL.

BOUVARDIA DAVISONI.

10,000 fine young plants propagated from root cuttings, clean and healthy, \$1.25 per 100; \$10 per 1000.

BEGONIA METALLICA—Strong, 4-inch pots, \$1.50 per dozen; \$10.00 per 100.

GERANIUM MME. SAILLEROI—2-inch pots, 75c. per dozen; \$4.00 per 100.

PANSIES—One of the finest strains in the country, of my own selection. Fine plants, \$4.00 per 100; \$20.00 per 1000.

MYOSOTIS ELIZA FANROBERT—Fine 8-rouz plants, \$3.00 per 100; \$25.00 per 1000.

DAISIES (Bellis Perennis)—Good clumps, \$2.50 per 100; \$20.00 per 1000.

WM. J. EISELE, Torrissdale, Philadelphia, Pa.

A Yellow Ageratum.

10 cts. Each. \$1.00 per Dozen.

APRIL 1st DELIVERY.

Emil Glauber,

MONTCLAIR, COLORADO.

Mention American Florist.

Rooted Coleus & Alternanthera Cuttings

Coleus Verschaffeltii & Golden Bedder, \$1.00 per 100. Alternanthera, in the leading varieties... \$1.00 per 100.

JOHN B. FERGUSON, Florist, E. E. Pittsburgh, Pa.

* THE *

UNITED STATES NURSERIES, Short Hills, N. J.

Chrysanthemums, the very best.

Single Dahlias, finest only.

Hardy Perennials, 7 acres in hundreds of the best kinds.

Orchids, the largest stock in America.

Cypripediums, largest and finest stock in the world.

Foliage Plants, fair assortment.


Best Quality at Low Prices.

Pitcher & Manda.

P. S.—We give 100 cents in Plants for every Dollar.

CUT BLOOMS LILIUM HARRISII FOR EASTER

All long stems, and of first quality. Our crop of this is now in bud in our greenhouses here, and will be in prime condition for Easter, having been grown very cool.

No "Bermuda Grown" Flowers handled,
as the long voyage renders them practically worthless.  Can be shipped safely as far west as Kansas. **CAN BE SUPPLIED IN ANY QUANTITY.**

F. R. PIERSON, TARRYTOWN, NEW YORK.

We are now ready to book orders for BULBS of this Lily for "OUR SPECIALTY." next season. This is, as is well known,

	Per 100
500 Dracæna, 3½-in. pots	\$8.00
2000 Verschaffellii, 2½-in. pots . .	2.25
Rooted Cuttings of Chrysanthemums .	2.00
Rooted Cuttings of Coleus	1.25

**W. W. GREENE, SON & SAYLES,
WATERTOWN, N. Y.**

GLADIOLUS BULBS. 100 named varieties and over 300 choice seedlings all mixed together. This collection has taken the first premium wherever exhibited, and the quality has not been lowered by removing the best to be sold in separate classes. While the prevailing colors are pink and white, all colors are represented. Price, for first size, \$10 per 1000; second size, \$7.50 per 1000.
M. CRAWFORD, Cuyahoga Falls, O.

	Per 100
Grape Vines, Empire State, 2 year.....	\$10.00
" " " " 1 year, strong.....	7.00
Ampelopsis Vitis, 1 yr., field grown, 1000, \$18.	2.00
" " " " 5-inch pot plants, 1 year.....	3.00
Geraniums from 2½-in. pots, fine plants, 12 to 20	
varieties double and single.....	2.00
" " " " Rose and Mme. Sallierot.....	2.00
Petunias, finest double..... per doz. 40c.	3.00
Daisies, English double white, and longfellow	
pink..... per doz. 25c.	2.00
Pansies, fine strain, transplanted..... 1000, \$8.00.	.75
Moon Flower and Sweet Alyssum..... per doz. 40c.	2.50
Antera Victoria, transplanted, bloom next June	1.00
This is a cash list, good till April 1st.	

E. FRYER, Delaware, O.

FOR SALE.

A large number of MARIE LOUISE VIOLETS, fine Fall rooted plants. Price on application.
**DUTCHESS NURSERY GREENHOUSES,
L. B. 225, Poughkeepsie, N. Y.**

DAHLIAS, choice named, 50 var., show, cactus and pompon, strong roots, per doz. \$1.00; per 100, \$4.50; per 1000, \$40.00
CYCLAMEN, fine plants in bud, per doz. \$1.00; per 100, \$7.00
GRAPE VINES, 10 kinds, choice, 2 year, including Niagara, Moore's Early, Brighton, Etc., per dozen, \$2.00
CLEMATIS, choice, 2 year, strong, best kinds, per dozen, \$5.00
MOSS ROSES, strong plants, per doz. \$1.50; per 100, \$3.00
ARISTOLOCHIA (Dutchman's pipe), per dozen, \$1.50; per 100, \$10.00
AMPELOPSIS VITICOLA, strong, 2 year, per doz. \$1.00; per 100, \$5.00
All kinds greenhouse, bedding, small fruit, hardy shrubs, and vegetable plants.
Correspondence solicited.
P. A. BALLER, Bloomington, Ill.

Asparagus Tenuissimus.

Asparagus tenuissimus has come to stay says Mr. John B. Keller, and I believe he is right. As the saying is, "figures don't lie," so compare the quotations for the winter months on asparagus and smilax. The highest that smilax has been this winter is \$35, and some months it has dropped down as low as \$10. The lowest price to which Asparagus tenuissimus has dropped this winter is \$25, and at times it has brought \$50, while A. plumosus has brought as high as \$75. I don't understand why florists do not grow it more extensively, for it can be grown as easily as smilax.

My method of growing it differs somewhat from that of Mr. Keller, as I believe more and more in shallow planting. I make the bed ten inches deep with plenty of drainage and raise the bed eighteen inches from the ground, which allows the heat to circulate under the bed, thereby inducing a quick growth. I also feed heavy with liquid manure as often as once a week.

There is nothing that fills the bill here for green as this vine, as it stands well in a warm room and looks fresh long after smilax has completely dried up. I don't want to run down smilax, but for private use asparagus takes the lead.

Bay View, Mass.

H. C.

Still Later.

Noting the statement regarding late chrysanthemums by S. H. B. would say that I am cutting blooms from Mrs. Brett, Old Gold, Thunberg and A. S. L. White up to this date—March 5, and expect to cut for Easter. A. S. L. Pittsfield, Mass.

CYCAS REVOLUTA,

In all sizes from 8 inches to 3 ft. high, laid down in San Francisco, freight and all other charges paid.

Pot-grown, well established plants, with root balls (root balls excluded), per 100 lbs. U. S. currency, \$18.00.

Open ground, well rooted, out of my Yokohama nurseries, per 100 lbs., U. S. currency, \$15.00.

Freshly collected, prime quality, per 100 lbs., U. S. currency, \$12.00.

[Orders for less than 500 pounds cannot be executed, as orders for a few hundred pounds would cost too much freight in proportion.]

RHAPIS FLABELLIFORMIS.

Also laid down in San Francisco.

Fine cultivated pot plants, from 18 inches to 2½ feet high, per 100 shoots, U. S. currency, \$30.00.

The same, freshly collected, per 100 shoots, U. S. currency, \$10.00.

TERMS, Cash with order or letter of credit to draw against.

LOUIS BOEHMER,

Nurseryman, Florist and Exporter of Japanese Plants, Bulbs, Etc.,

28 Bluff, YOKOHAMA, JAPAN.

Reference, U. S. Legation, Tokio, Japan.
Mention American Florist.

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409 Fifth Avenue, NEW YORK, U. S. A.

N. STUDER, WHOLESALE FLORIST.

I have a Large Stock of DECORATIVE PLANTS, as
PALMS, DRACÆNAS, FERNS, PANDANUS, ETC.,
for immediate use, and a still larger stock growing on for Spring sales, as well as of all the choicest BEDDING and CUT FLOWER PLANTS, especially ROSES. Especially in excellent condition.

Inspection of my stock at the Nation's beautiful Capital cordially invited.
WRITE FOR PRICE LIST.

ANACOSTIA P. O., WASHINGTON, D. C.

SEND IN ORDERS NOW FOR SPRING DELIVERY OF

**JAPANESE MAPLES,**

of which we import 20

choice varieties.

Maple Seedlings for Grafting.

HARDY MAGNOLIAS and other Flowering Shrubs.
AUSTRALIAN TREE FERNS, Araucarias, Cycas
revoluta, Rhapis, Kentias, Date and California
Palms.

BULBS.

Thirty choicest varieties from Japan.

Sacred Lily from China

SEEDS.

Fresh from Japan and Australia.

PAMPAS PLUMES.

A very Choice lot on hand.

Send for Estimates and Price Lists.

H. H. BERGER & CO.,
P. O. Box 1501, SAN FRANCISCO, CAL.
Established 1878.

ORCHIDS! ORCHIDS!

Many additions of Choice New varieties this season.

Send for New Catalogue.

WM. MATHEWS,
UTICA, N. Y.

CUT BLOOMS AT ALL SEASONS.

TUBEROUS BEGONIAS.

Splendid strain, with upright flower stalks, large flowers of line shape, in a great variety of brilliant colors.

Per 100, \$4 to \$6. Extra Selected, per 100, \$8.

ZOCHER & CO., Haarlem, Holland.

SEND FOR

SIEBRECHT & WADLEY'S
NEW CATALOGUE OF
* NEW, RARE *

— AND —

BEAUTIFUL PLANTS,

Fully Illustrated and Descriptive.

208 PAGES.

Per Copy, 25 Cents, Postpaid.

THE ROSE HILL NURSERIES,

NEW ROCHELLE, N. Y.

All Wholesale and Trade Catalogues Free on application.

Mention American Florist.

ORCHIDS

Cheap as Good Roses.

Send 8 two cent stamps for Catalogue and Plate.

BRACKENRIDGE & CO., GOWANSTOWN, Md.

JOHN SAUL'S

Washington Nurseries.

Our catalogue of new, rare and beautiful plants for 1890 will be ready in February. It contains a list of all the most beautiful and rare Greenhouse and Hothouse Plants in cultivation, as well as all novelties of merit, well grown and at very low prices. Every plant-lover should have a copy.

ORCHIDS.

A very large stock of choice East Indian, American, etc. Also catalogue of Roses, Orchids, Seeds, Trees, etc.

JOHN SAUL, Washington, D. C.

Mention American Florist.

PALMS.

	Per 100
Brahea Filamentosa, 2-inch pots.....	\$ 5.00
" " 3-inch pots.....	10.00
" " 5 and 6-inch pots.....	25.00
Chameroops elegans, 4-inch pots.....	20.00
" " Canariensis, 2-inch pots.....	15.00
" " 4-inch pots.....	30.00
Excelsa, 2-inch pots.....	7.00
Pandanus Ullis, 2-inch pots.....	10.00
" " 3-inch pots.....	15.00
" " 4-inch pots.....	20.00
" " 5-inch pots.....	30.00
" " 6-inch pots.....	40.00
Dracena Indivisa, 2-inch pots.....	10.00
" " 4-inch pots.....	25.00
Hibiscus, single red, 2-inch pots.....	5.00
" " 3-inch pots.....	10.00

Also Geraniums and other plants cheap.

H. W. WILLIAMS & SONS, Batavia, Ill.

Chicago.

The annual dinner of the Chicago Florist Club was decidedly a most enjoyable affair. Though some thought the club was flying a little too high in the arrangements for the occasion, there were no empty seats and some of the hardest grumblers enjoyed the banquet room with their presence. The eatables and drinkables were eminently satisfactory, and the after dinner remarks both pointed and witty. That all present most thoroughly enjoyed themselves was evident from the opinion generally expressed that "we ought to have them oftener." The table was handsomely decorated with blooming azaleas and numerous bowls of roses, among the latter being one containing fifty splendid blooms of the much abused Wootton, sent by Messrs. C. Strauss & Co., Washington.

The club has issued an advance sheet giving the premiums to be offered for chrysanthemum plants and cut flowers at its third flower show which will be given next November. Copies may be had on application to the secretary, 54 La Salle street. The complete premium list, with specials etc., will be issued in September.

The New York Tribune reports that the *Rural New Yorker* has been purchased by Lawson Valentine and E. H. Libby. The former editor, Mr. E. S. Carman, will still remain as editor in chief.

SPECIAL 30 DAYS OFFERS.



I have made a specialty of growing the choicest strains of Flower Seeds for 15 years. The strains here offered have been awarded

13 FIRST PRIZES

by the Mass. Horticultural Society. I want every florist to try at least a few this year, and for 10 cts. will send my new Catalog and 6 pkts. 20 to 50 seeds in each, including 35 varieties choicest DOUBLE ANTERS, mixed; 50 vars. PANSIES; GYNOPHILA or WINE FLOWER, elegant for floral work; 42 vars. IMPROVED SWEET WILLIAMS. Catalog contains no elegant and artistic colored plate. BLUE AND PINK ZANZIBAR WATER LILIES, the only plate of these magnificent Lilies published in this country. They will bloom in pans, tubs or tanks in open air in summer and house in winter. They are as easily grown from seeds as asters, are sure to germinate in a few days, and make a remarkably rapid growth, and begin to bloom FOUR MONTHS FROM SOWING SEED, continuing in flower for months. IT WILL PAY EVERY FLORIST TO GROW THEM.

Trade price, packets of 50 seeds, blue variety, 20 cts.; pink variety, 30 cts. Directions with each packet.

SPECIAL INTRODUCTION OFFER!

FOR SIXTY CENTS or thirty-two letter stamps I will send EVERYTHING MENTIONED IN THIS AD., above and below, IN PACKETS, AMOUNTING TO \$2.20 AT RETAIL.

EUPHORBIA HETEROPHYLLA,

(Fire Plant or Fire on the Mountain). A splendid new annual foliage plant from Mexico; 3 feet tall, very branching and leafy; leaves 2 inches long; those on the ends of branches blotched with fiery scarlet after manner of Fuchsia. Easy to grow, and valuable for decorative purposes. (See note by W. F. in FLORIST, Oct. 1889).

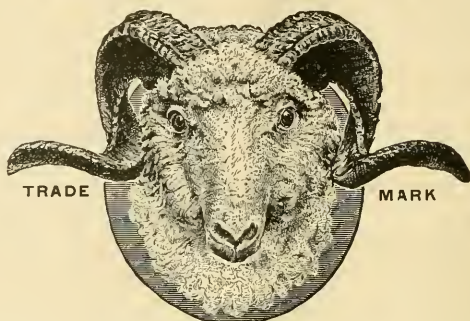
FROM A SETOSA or Brazilian Morning Glory, is the most ornamental of all annual vine, climbing 40 ft., with immense leaves, often a foot across. Every part of the vine is covered with conspicuous reddish hairs. Flowers large, of a beautiful rose color, borne freely for months. This is entirely distinct from all other FROMEAS, and a genuine new variety, of which I have the entire stock this season. 50 vars. Japan Pinks; 38 vars. Improved Double Poppies; 10 vars. Double Portulacas; 30 vars. large flowering Drummond Phlox; new Pansy Park Prize strain; 5 vars. superb new Godetias; 10 vars. Battery flower; Giant White Chastity; true Little Gem Sweet Alyssum (as originated by me), very valuable for florists.

L. W. GOODELL,

Fansy Park, DWIGHT, MASS.

Mention American Florist.

Established 1845



WHOLESALE

AND RETAIL.

WE ARE NOW BOOKING ORDERS for our choice Early White Roman Hyacinths, Lilium Harrisii, Tulips, Narcissus, and other Bulbs for Fall Delivery. Prices on application.

OUR TRADE CATALOGUE of CHOICE FLOWER SEEDS, SPRING BULBS, &c.

MAILED FREE TO FLORISTS.

	Per Doz.	Per Hun.
BEGONIA, Tuberous Rooted, single, from Laing's collection . . .	\$1 50	\$10 00
CALADIUM ESCULENTUM, small bulbs . . .	75	5 00
" " medium bulbs . . .	1 00	7 00
" " large bulbs . . .	1 25	9 00
GLADIOLUS, NEW SNOW WHITE . . .	2 00	15 00
" light colors, mixed . . .	\$2 00	\$15 00
" white and light, fine for florists . . .	3 00	25 00
" yellow varieties . . .	2 00	17 50
" extra fine mixed . . .	1 50	12 50
TUBEROSES, Tall Double, first quality . . .	1 50	12 00
" Pearl, first quality . . .	1 50	13 00

SHEEP Manure, the best plant food. CLAY'S Fertilizer, and all Florists Requisites.

WM. ELLIOTT & SONS,

(Formerly YOUNG & ELLIOTT.)

SEEDSMEN AND HORTICULTURAL AUCTIONEERS,

54 & 56 Dey St., NEW YORK.

NEW TOMATO SALZER'S SOUTHERN GROWN.

My Market Gardeners List is now ready, containing many Rare Novelties found in no other Catalogue in America. I make a great specialty of Early Vegetables and Tomatoes.

SALZER'S EARLIEST.
Out of over a hundred sorts tried in 1889, this proved to be the earliest by all odds. Pkg. 8c; 1/2 oz. 25c; oz. 50c.

SALZER'S LA CROSSE SEEDLING.
This is my New Tomato Novelty, and we guarantee it to be the finest prolific, large sized, early Tomato in the trade. Pkg. 8c; 1/2 oz. 40c; oz. 80c; 1 lb. \$1.75.

SALZER'S MORNING STAR. A Giant Tomato. Pkg. 8c; oz. 50c.

TRADE LIST FREE.
SPHAGNUM MOSS. For immediate delivery. Bale \$1.25; 5 bales \$5.00.

JOHN A. SALZER SEED CO., LA CROSSE, WIS.

SEEDS

WE HAVE A LARGE STOCK

DAHLIAS.
GLADIOLUS.
RICHARDIA.
MILLA BIFLORA.

AMPELOPSIS.
MOON VINE.
GERANIUMS.
PANSIES.

And a general assortment of Greenhouse and Bedding Plants and Summer flowering Bulbs. Write for Wholesale Price List for Spring, 1890.

MICHEL PLANT AND SEED CO. ST. LOUIS MO.

GRAPE 850,000 VINES 100 VARIETIES

Headquarters of the MOYER, the Earliest, Best, Reliable Red Grape. Also SMALL FRUITS, TREES, etc. 8 sample vines mailed for 15 cents. Illust. descriptive Price List free. LEWIS ROESCH, FREDONIA, N. Y.

ALBERT BENZ, Douglaston, N. Y.

To Kill Slugs.

In answer to my enquiry in FLORIST of February 1 for a remedy for the presence of a soft slug among my violets in a cold frame, Mr. John Mull, of Dayton, Ohio, writes me that he has been troubled in the same way, and found quick relief by applying cigar factory tobacco dust thickly underneath about the roots. This remedy is simple, inexpensive, and from which no injury arises. Need not be afraid of a liberal application.

Taunton, Mass. GEO. P. CUTLER.

Slugs.

In answer to "R. E. S.," about slugs, will say, we know them well. A very small one can soon destroy a carnation flower, and we have lost hundreds this winter until we used the following: Add a teaspoonful of Paris green to a quart of dry oatmeal or bran, well mixed, and drop it about in small bunches where they frequent. It will do the work well. The slug generally gets away, but does not return.

R. P. JEFFREY & SON.

Bellmore, L. I.

Trees & Plants

Of all kinds at almost half price. Lovett's Guide gives descriptions and prices, tells how to purchase, plant, prune, etc. It is a book of over 60 pages, finely illustrated, free; with colored plates 10c.

Trees & Plants by Mail a Specialty. A copy of that practical, horticultural journal, ORCHARD & GARDEN, free to all who state where they saw this advt.

J. T. Lovett Co.,

LITTLE SILVER, N. J.

HORTICULTURAL SUPPLIES.

We carry a complete line of all the NEWEST AND BEST HORTICULTURAL TOOLS and other supplies. Our Special Circular describes them all. Send for it Free. Send also for our Special Poultry Supply circular FREE, for most complete SEED CATALOGUE published.

JOHNSON & STOKES, 217 and 219 Market St., Philadelphia, Pa.

The best Christmas Present for a working florist will be "Floral Designs," the help for cut flower workers. Write about it to J. Horace McFarland, Box 55, Harrisburg, Pa.

CHAS. KROMBACH, FLORIST,

MAIN OFFICE, 181 to 187 25th St., Brooklyn, N. Y. BRANCH OFFICE, 304 Av. & 20th, Special attention given to the care of lots in Greenwood Cemetery.

Florists knowing of persons who have plots in Greenwood Cemetery which they want cared for, and who will send such to me, will be given a commission of 10 per cent. on the order.

SEEDLINGS.

Per 1000 Per 5000

PEACH, No. 1.....	\$4.00	\$17.50
" No. 2.....	3.00	12.50
PLUM, No. 1.....	6.00	25.00
" No. 2.....	4.00	17.50
PEAR, No. 1.....	9.00	

SPRING CITY NURSERIES,

HUNTSVILLE, ALABAMA.

Foreign Grape Vines for Graperies.

Splendid 1 and 2 year old vines, true to name, grown by an expert. List of varieties and prices mailed on application. HENRY A. DREK, 714 Chestnut St., Philadelphia, Pa.

The "PLANET JR." SEED DRILLS WHEEL HOES HORSE HOES

The "PLANET JR." No. 2 GARDEN DRILL, is beyond question the best; sows the most difficult seeds; opens, covers, rolls down and marks the next row with the greatest regularity.

The COMBINED DRILL and HOE, &c. The greatest favorite ever produced. Perfection as a Seed Drill, or as a Flow, Hoe, Garden Rake, Cultivator or Marker. Saves labor and seed and soon saves cost.

The DOUBLE WHEEL HOE. A money maker for farmers and gardeners. Works both sides of a row at once. Flows to or from, opens furrows, covers, cultivates, hoes, rakes and has leaf guards.

The SINGLE WHEEL HOE is a treasure. Beats the double in some crops; is lighter. Has a Large Plow, two Long Hoes, two Rakes, three Cultivator Teeth, and a Leaf Guard.

The FIRE-FLY SINGLE WHEEL HOE. Equals the last, except has no rakes nor leaf guard.

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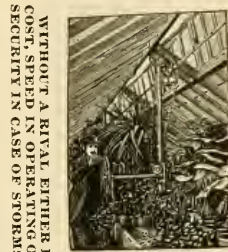
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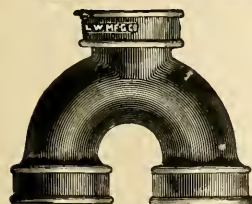
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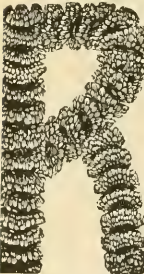
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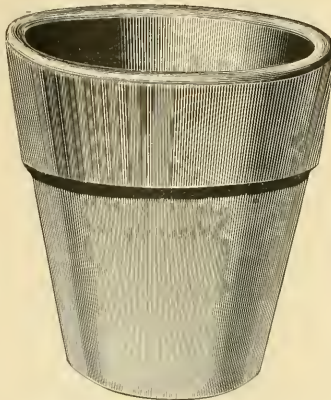
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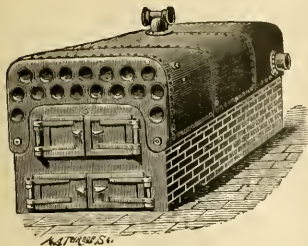
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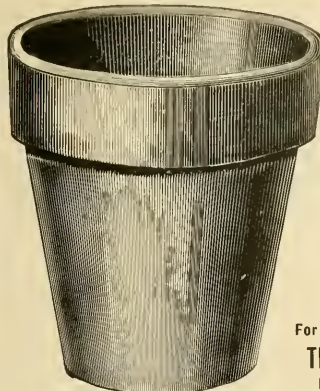
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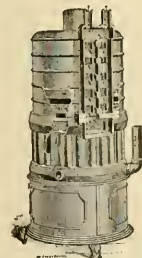
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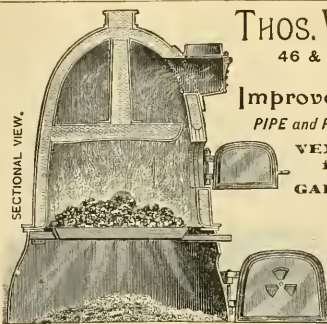
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Index to Advertisers.

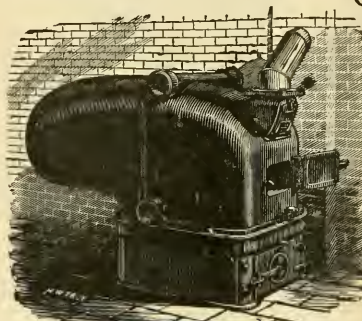
Advertising Rates, etc.	374
Aldine Printing Wks.	380
Allen S. L. & Co.	388
Allen, W. S.	375
Association Florists	381
Baker Bros.	382
Bailey F. A.	383
Bayardorff H. & Co.	389
Beas Samuel St.	381
Benz Albert.	387
Berger, H. H. & Co.	385
Blanc, A.	389
Bock Wm A.	378
Boehm Louis.	384
Bonsall Jos E.	382
Brackneridge & Co.	384
Brainer & Reichter.	387
Brinton W. F.	380
Brown R S & Son.	378
Buckhee H W.	382
Burgovin P. J.	387
Caldwell Geo W.	376
Charmody J. D.	382
Casper L. A.	382
Chandler Alfred.	389
Chattfield A. F.	378
Chipman Bros.	381
Chitty H. E.	387
Classman Geo.	382
Connelly John J.	377
Crawford M.	383
Critchell P. & Co.	387
DeWet Tunia.	387
DeVeer J. A.	371
Devine, Peter.	391
Diaz, John L. & Co.	391
Dillon, J. L.	375
Dingee & Conrad Co.	371
Dreer, H. A.	379
Dutchman Nur. Green-	382
houses.	383
Eisele W. G.	382
Eisele W. J.	382
Elliott Wm & Son.	386
Ellis Bros.	387
Faber Bros.	387
Faust & Bro.	370
Ferguson John B.	382
Ferry D M & Co.	380
Flaher Bros & Co.	380
Fisk Chas H.	375
Floral Supply Co.	388
Frese O W.	375
Froebel & Co.	370
Fryer E.	383
Fulweiler P. C.	381
Gardner Jno & Co.	382
Garfield Park Rose Co.	375
Germard & Cosgrove.	371
Gibson J. C.	387
Giddings A.	378
Glauber Emil.	382
Goodell I. W.	386
Greene W W Son &	383
Griffith, Jas.	389
Griffith, N. S.	379
Hall Association.	385
Hales, H. W.	376
Hallock, V. H. & Son.	380
Hammond, Benj.	389
Hammond & Hunter.	375
Hancock George.	387
Hehl Joseph.	387
Henderson John Ch.	371
Herendeen Mfg. Co.	382
Herr, Albert M.	389
Hews A H & Co.	380
Hillender Bros.	380
Hippard E.	370
Hitchings & Co.	382
Hollis George.	376
Hooker, H. M.	380
Horan, Edw C.	375
Hubbard T S & Co.	388
Hudson John M.	375
Hunt R. H.	375
Hughes R. G.	380
Iren, J. H.	380
Jackman Geo & Co.	379
Jewett Z. K.	380
Johnson & Stokes.	388
Kelsey F. W.	385
Kennicut Bros.	385
King Jas.	381
Kramer I N & Son.	379

Krick, W. C.	380
Krombach Charles.	388
Lawson J.	388
Larkin Isaac.	387
La Roche & Stahl.	375
Leamy Mrs E. A.	378
Lippincott Geo A.	388
Little W. S.	378
Luckland Lumber Co.	380
Lombard R. T.	387
Lonsdale Edwin.	385
Lovett T. T. Co.	380
McCarthy N F & Co.	375
McGee & Co.	387
McFarland J. Horne.	388
McMahon Frank.	371
Marc Gabriel & Co.	380
Mathews, Wm.	384
May John.	371
Mey L. L. & Co.	371
Merrick A. T.	376
Mette Henry.	370
Michel Plant & Seed Co.	380
Miller, Geo. Wm.	370
Miller John.	380
Moon Wm H. Co.	379
Mullen Geo.	375
Nare & Neuman.	380
National Hot Water	381
Heater Co.	381
Pennock Chas E.	375
Pierce Butler & Pierce.	383
Pierson F. R.	383
Pike Co Nurseries.	389
Pitcher & Manda.	383
Plenty, Joseph.	381
Probst Bros Floral Co.	385
Quaker City Mch. Wks.	389
Reed & Kall.	389
Renard Jos.	382
Roach J. B.	382
Roesch, Lew.	382
Rolker, A. & Sons.	380
Ross & Millang.	375
Rupp H S & Sons.	375
Salter Bros.	371
Salzer John A Seed Co.	386
Saul John.	380
Schultheis Bros.	371
Schnitz Jacob.	370
Scollay John A.	380
Segers Bros.	381
Sheldire W. R.	387
Sherridan W.	375
Siebrecht & Wadley.	384
Sievers John H.	372
Sipple Duffie & Co.	381
Situations, Wants.	389
Smith David.	382
Smith Frank B.	377
Smith Powell & Lamb.	378
Smith & Smith.	380
Super J. J.	387
Souper & Nottling.	371
Spaulding T. H.	375
Spooner, Wm. H.	370
Starr Chas T.	384
Steffens N.	389
Stewart, Wm. J.	375
Storrs & Harrison Co.	385
Strass C & Co.	383
Studer N.	384
Swayne Wm.	387
Taylor John H.	387
Thompson Mrs J S R.	375
Thompson Geo & Son.	388
Thorburn J M & Co.	380
Tritcher M & Son.	381
Tuttle Sabin & Co.	379
Van Bochove & Bro.	380
Van der Schoot & Son.	380
Vaughan, J. C.	371
Waterer H.	376
Watson B. M.	376
Weathered, Thos W.	382
Weich Bros.	375
Whitliff Pottery Co.	381
Wilks & Mfg Co.	380
Williams H W & Son.	384
Wisconsin Flower Ex.	387
Wolf L Mfg Co.	389
Wood Bros.	385
Yonck, Thos. H.	385
Zirngiebel D.	379
Zocher & Co.	383



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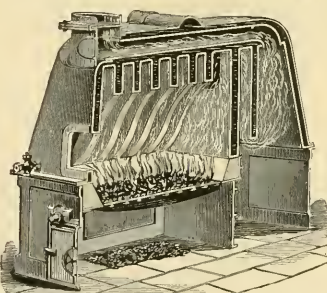
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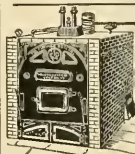
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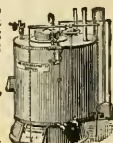
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Vol. V.

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CONTENTS.

Hardy plants	393
New York notes and comments	394
Summer decoration (with illustration)	395
The March cold snap	395
Roses—Long Island notes	396
Ronnevea Conlteri (with illustration)	397
New Plants again	397
Orchids—cut flowers	398
Books on landscape gardening	398
Orchid house at Langwate gardens (illus.)	399
Chicago notes and comments	399
Boston notes	399
Notes on seed novelties	400
Arnebia cornuta (illustration)	400
The white Fournier Fournieri (illustration)	401
Mrs. Alpheus Hardy	401
Figuiera trinervia	402
Genista canariensis	402
Daughtrey regina begonia	402
Carnation twitter (with figure)	402
Slugs among violets	402
Carnations—cost of production	403
—The Buttercup	403
New York odds and ends	403
Steam heating	404
Philadelphia	404
Catalogues received	405
Coming exhibitions	405
New notes	405
The seed trade	410
Killing greenfly	412
Rose Gloire de Margottin	412
Grindia ohionica	412
Hartford, Conn.	414
Chicago	416
Violets losing fragrance	416
Society of Minnesota Florists	418
2 inch pipes	420
Au absent minded florist	422

Hardy Plants.

EARLIEST SPRING FLOWERS.

It depends upon the season and location when our earliest spring flowers come into bloom, and there is no class of plants so variable in their time of blooming as are the spring flowers. In a season like this when the weather has been unusually mild the earliest snowdrops appeared about the end of January, four to six weeks earlier than they would have done were the season a rigorous one; again, while we have had snowdrops in bloom in a moist but warm, sheltered nook, the same species in an open cold exposure is nearly eight weeks behind the other. And so it runs with most all kinds but lessening in difference as the spring advances. And in shady places they are generally later than in sunny spots, thus triflings that may be in full bloom in a sunny nook in the middle of April may not be in blossom at all in the shady parts till May, and so on. The great majority of early spring flowers are of little use to the cut flower florist, they are not large or showy enough; their chief service comes in for the florist who deals in plants and bulbs, the florist who does jobbing gardening and uses them in beautifying the places he takes care of, and all progressive florists who delight in making their own homes cheerful and the exterior of their establishments inviting to the public. And many spring flowers are welcome auxiliaries as pot plants for midwinter or February and March decoration in greenhouses. Spring flowers should be planted in large quantity and where they can remain permanently in order to obtain good effect. And they should never be planted on bleak cold exposures, or in very poor ground. Most of them, the bulbous plants for instance, make rapid and full growth in spring and die down in early summer and remain dormant till next year, and this renders them very accommodating, because we can grow them under and around deciduous trees and shrubs, for while they are in full growth and bloom the trees are naked and almost shadeless; if in grass lawns they complete their growth before mowing begins, and if in flower beds or borders they disappear in time to permit the encroachment of summer-blooming plants without injury to either. With evergreen species, however, the case may be different, for while some, as moss pink and white rock cress refuse to thrive in shady places, others, like shortia and hepatica prefer partial shade. Again, while many plants will luxuriate all the year round in an open sunny situation providing the ground is good, moderately moist and loose or mulched on the surface, the same kinds of plants would die in summer if grown on an open, naked, hard, dry border.

The different kinds of Christmas roses and Lenten roses (*Helleborus*) may be styled our earliest flowers, for they, according to variety, may be had continuously in bloom from November till the end of April. *Helleborus niger* and its varieties are white flowered and the earliest; hybrids between this species and *H. Orientalis* are white spotted with green and purple and come next. The spring-blooming kinds are greenish or purple flowered and among the best of them are *H. Colchicus*, *H. odoratus purpurascens*, *H. Olympicus* and *H. Orientalis*.

The winter aconite (*Eranthis hymalis*) is the earliest of our spring flowers. It is a little yellow-flowered crowfoot, fit to grow in partially shaded places and somewhat moist good soil. The earliest snowdrops appear about the same time—February or March—and are now charming and esteemed little plants. The common one (*Galanthus nivalis*) is the form usually planted, and there is a fine fall-double variety of it. *G. Elwesii*, however, is the finest flowered species, and it is large and early, and the Crimean snowdrop (*G. plicatus*), large and late, should not be omitted.

Crocuses are the gayest of our spring flowers and last from February till the end of April. The varieties of *C. vernus*, *Susianus* and *versicolor* are the commonest in cultivation, but there are many other fine species. They will grow and bloom most anywhere, but to have them in perfection and year after year they require good ground, somewhat moist and slightly shaded.

Siberian squills and their lovely allies *Scilla amena* and *S. bifolia*, come into bloom about 10 to 14 days later than crocuses and are the most vivid of our spring blue flowers. All are easily grown and long-lived, and while they like partial shade the *S. Sibirica*, especially, is quite at home in open sunny quarters. It multiplies fast from self-sown seeds.

The *Chionodoxa Lucilie* or glory-of-the-snow, as we now call it, closely resembles these scillas, but its spike is longer, looser and more flowered, and the blue flowers have white centers. But while it is excellent for pots and frames and choice warm spots out of doors it is not nearly as rugged a plant as the scillas.

The spring meadow saffron (*Bulbocodium vernum*) blooms about as early as do the crocuses, is not unlike them and has rose-purple flowers. It likes partial shade—especially in early summer.

The spring snowflake (*Leucojum vernum*) is a little gem with nodding white green-tipped flowers that come in a little later and stay a little longer than the snowdrops. Although not very common it is very desirable.

Iris reticulata and its variety *Krelagii* are the earliest of their family and bloom at the same time as do the crocuses. They are perfectly hardy, neat, 8 to 12

EASTER is at hand.

THIRTY-TWO PAGES this issue.

THE TERRIBLE CYCLONE which swept over Louisville, Ky., March 27, undoubtedly played havoc with glass structures there.

OUR ANNUAL REPORT of the Easter trade will appear in next issue. Send in a report from your city, and mail it on the 7th inst.

REPORTS indicate that at nearly all points trade during Lent has averaged better than in previous years. This is a decidedly encouraging change.

inches high, and their blossoms are deliciously fragrant and colored violet, purple and gold. Perhaps *Iris Kolpakowskiana* may lay claim to equal earliness, but certainly not to equal loveliness. *Iris Persica* is also a very early one and with beautiful showy flowers, but it likes a warm corner.

Among early flowering anemones the hepatics take the lead. They love partial shade in summer. The double flowered varieties are gems in their way but scarce and hard to handle. *Anemone blanda*, a handsome blue flowering species from the Apennines should be grown in patches, for it is a beauty. The European pasque flower (*A. Pulsatilla*) comes in about the middle of April and will thrive in the open border. The coronaria and fulgens anemones although so gay and pretty are not always reliably hardy, that is hardy enough to grow and bloom vigorously year after year. Wood anemones come later.

The Rocky Mountain yellow *Erythronium* (*E. grandiflorum*) comes into bloom early in April, and is the finest species of all. It is soon succeeded by the different varieties of the European Dog's tooth violet (*E. Dens-canis*), and about the end of April or first of May in comes our common adder's tongue (*E. Americanum*). All love moist, rich ground with an open surface and partial shade.

Fritillaria pudica is a little yellow flowering beauty from the Rocky Mountains and one of our earliest spring flowers, coming in as it does in the second week of April. Crown imperial, guinea-hen flowers, and the other species common in gardens do not bloom till about the end of April.

The several species and varieties of narcissus beginning with the forms of *N. bicolor* or pseudo-narcissus, and also including *N. odoratus*, *N. Jonquilla* and the *N. poeticus*. If grown in good ground partially shaded in summer they will improve and multiply. Jonquils require a warm aspect. It often happens that several kinds of narcissus start to grow in fall and consequently get injured in winter, but this can be overcome to a large extent by lifting the bulbs in summer after they have completed their growth and not planting them again till the end of October.

Spring adonis (*Adonis vernalis*) has very large bright yellow flowers that open in the day time and close at night, and it is one of the gayest of spring flowers. A most desirable plant thriving in any ordinary border, and it is long-lived but slow to increase. *Adonis Pyrenaica* is another and very fine species in the same style.

Violets. *Viola odorata* in its several forms, single and double, is earlier than any of our wild species. The plain species and its white variety soon naturalize themselves in moist, faintly shaded places, and I have had them do so too on warm sunny banks. The Czar violet is hardly here, but the Neapolitan is barely so. Pansies with shelter do fairly well. But bedding violas and pansies can only be had in their finest estate when wintered under glass. *Viola rotundifolia* is one of our best earlies, then later come *blanda*, *lancifolia*, *Patrinii*, *rostrata*, *pubescens*, *canadensis*, *sagittata*, and many others that are hardly worth cultivating. But some forms of our common *V. cucullata*, notably the white flowered and variegated flowered forms are well worth growing, and they will grow most anywhere. And the only drawback to *V. pedata* is its commonness. *Viola cornuta*, both white and blue, grow and bloom well as common garden plants.

The common periwinkle (*Vincetoxicum* or "myrtle" as it is often called blossoms very prettily in early spring and keeps in bloom for a long time. Its use for shady places, also for planting in cemeteries is well known to every florist. *Vincetoxicum* is another and far more copious blooming hardy species, but not being evergreen it is not nearly so good as the common minor for the florist. *Vincetoxicum* major, the one we use so much of as a vine for vases, is not quite hardy with us.

Arabis albidula, the white rock cress, becomes a sheet of snow about the middle of April. It is a very desirable plant easily raised from seed or increased by division, and of dense, flat, spreading habit and very hardy, and likes an open place all the year round. The bloodroot, *Sanguinaria Canadensis* also comes in about the 10th or 16th of April and is one of our most welcome spring beauties, but it is of brief duration. It loves good moist ground with a loose surface and thin shade from scorching sunshine in summer. Aside from spreading at the root it increases a good deal by self sowing.

Omphalodes verna, the creeping forget-me-not, is a little spreading plant with bright blue flowers, and very pretty for a somewhat moist half shady place. It keeps green all summer and should never be grown in poor, dry or exposed places; it loves shade from warm sunshine.

Glen Cove, N. Y. Wm. FALCONER.

New York Notes and Comments.

W. C. Wilson's nurseries are now to be carried on by a company recently organized. The place is to be known as Astoria Nurseries. The intention is to carry a large stock of palms, ferns and florists' stuff generally, as well as nursery stock.

The smart (?) nurseryman who formerly sold an old and familiar bedding plant as a novelty under the title of "Rainbow Plant" is coming to the fore again; among his novelties this year is the "Rainbow Cactus" (*Echinocereus caudatus*). It is described as a beautiful, rare and costly cactus, a most beautiful plant at all times, but unsurpassed in grandeur when in flower. Another novelty offered by the same man is the "new perpetual blooming hardy climbing white rose, Mary Washington," whereof a pretty little romance is related about its culture by Washington at Mount Vernon, where it originated, and where it has grown pure all these years, until this enterprising florist had an opportunity to spring it on an unsuspecting public.

Another plant advertised in various domestic publications is the "Orchid Water Lily." Such a combination title is rather a stunner; the thought of a cross between an orchid and a water lily is enough to make the shade of Asa Gray revisit the realms of earth. However, the advertiser is kind enough to tell us that the "Orchid Water Lily" is a rare pontederia, with lovely orchid-like flowers (in italics). From the description given it is presumably *P. crassipes*, which is really a most interesting plant, well worth growing. It deserves the praise given it in the advertisement, but such an abominably misleading and incorrect name as "Orchid Water Lily" ought not to be allowed. Why, it is not even a water lily, and when one adds insult to injury by tacking on the name "Orchid" in addition, it is enough to make the abused plant curl right up and die on the spot. The committee on nomenclature could have a good deal of fun studying the floral advertisements in domestic papers which have their largest circula-

tion in remote rural districts. Advertisers of remarkable novelties usually put in their best efforts on these papers. It may show smartness to persuade people to buy old truck under high sounding names, but I doubt whether it does the business any good in the long run. That pontederia is no doubt a pretty and easily grown plant, but it has no right to go about in a mask and domino as the "Orchid Water Lily." As for the "Rainbow Cactus" man, his advertising cuts and descriptions bear about the same relation to the plants they represent as the posters outside a dime museum do to the freaks within.

On a recent visit to the Rose Hill Nurseries at New Rochelle, a number of orchids were in bloom, though a large proportion of the flowers were used at the recent show. A very fine batch of *Odontoglossum vexillarium* was just coming into bloom; strong plants, showing a profusion of spikes. An exquisite little *epidendrum* noted was *E. bicoloratum*; the flowers were pure white with a few crimson spots in the center of the lip. It is said to be rather difficult to flower; Mr. Siebrecht considers its chief desideratum to be plenty of light, as well as heat and moisture; it should be grown up near the glass. This plant is also known as *Diarrhiza bicoloratum*.

Quite an odd little freak in *Cypripedium bellatulum* was a flower having three little projecting horns on the lower part of the pouch. One of the most fragrant orchids in bloom was the little *Erides japonicum*; it is a cool house species, bearing a little raceme of white flowers marked with pale purple. A most beautiful white orchid was *Dendrobium Dearei*; it produces both terminal and lateral racemes of handsome pure white flowers; the only color is a green tinge in the throat. The flowers last several weeks in perfection; it is certainly one of the handsomest dendrobies.

In the rose houses some very fine Puritans were to be seen. When we see a perfect Puritan we can not wonder at the praise it received, but it is one of those roses which would only pay a man who handles his own stuff. Some fine *Gontiers* were observed in a cool house. Mr. Siebrecht is of the opinion that this is essentially a cool house rose, coming nearest perfection in the same temperature as carnations. The house here noted runs about 50°, and the plants not only keep clean, but are entirely free from any tendency to drop their leaves, which appears to be the greatest fault the plant possesses.

Rose Hill is likely to produce some very fine hybrid *amaryllis*; crosses are now being made between *Empress of India* and other showy varieties. These plants ought to be of decided value in the trade; they are exceedingly showy and highly effective in decoration.

A stove shrub which is recommended for sub-tropical bedding is *Phyllanthus rosea picta*, it is graceful in habit, covered with a profusion of ovate leaves, crimson tinted. It would show up well in a group of light colored crotons.

One of the coming additions at Rose Hill is a lily pond, where *Victoria regia*, Egyptian lotus and other handsome aquatics are to be grown. Another branch to be extended is that of herbaceous stuff, which seems to be increasing in demand. By the way, a thing in this line useful to the florist is the fine-leaved paeony, *P. tenuifolia*; it is very vivid in color and may be forced by Easter. A lot of the finer sorts of paeonies have been found useful in the cut flower trade.



SUMMER DECORATION AT GREENHOUSES OF MR. GEO. CLASSMANN, SING SING, N. Y.

A very fine specimen cycad, recently imported from Potsdam, was *Encephalartos Altensteinii*, a large and handsome plant of a rare variety, it is closely allied to the *zamia*s.

Apropos of late chrysanthemums, Mr. Siebrecht cut some blooms of Mrs. Hardy on St. Patrick's Day; there is something lingering about that.

We can't tell just yet how Easter stuff is going to turn out, but it looks as if a good deal of it would be much too late. The miserably dull or rainy weather has put everything back; a great many of the *hydrangeas* seem likely to be late. Thos. Hogg seems generally more advanced than Otaksa, and for the last few years the latter has held the preference. Without continuous sunshine for the last two weeks of Lent a good many of the flowers will fail to be on hand, and this will entail a considerable loss.

EMILY LOUISE TAPLIN.

Summer Decoration.

Considerable has been said in the *FLORIST* regarding the decoration of florists' grounds in summer, and in connection therewith we present an engraving reproduced from a photograph of a portion of the grounds of Mr. Geo. Classmann, a florist at Sing Sing, N. Y., taken during the summer of 1889.

Mr. Classmann writes: "You would be surprised to see the number of visitors coming to see my flower garden during the summer months, and what a financial effect it has on my business."

We are not surprised at the effect noted. We should be surprised did not the care and time expended pay for itself many times over. You florists whose grounds are devoid of any decoration immediately adjoining the greenhouses, except piles of pots, old boxes and rubbish, take a look

at the accompanying illustration and go and do likewise. Put your best, not your worst, side out; and begin this spring.

The March Cold Snap.

Up till the first of March we had the most open winter of my remembrance; trees and shrubs were nudely forward and there was no frost in the ground. But with the advent of March the day of reckoning came and winter appeared in a snowstorm and searing frosty winds and the temperature fell as low as 10° Fah. *Prunus Maackii* and *Spiraea sorbifolia*, always in a hurry, were bursting into leaf, but now their young growths hang upon them like blackened rags. *Jasminum nudiflorum* was just out of bloom and escaped unburnt. *Hamamelis Japonica*, painted in gold since the middle of January, had every blossom killed, but as *Corylopsis pauciflora* and *Cornus Mas* had barely burst into bloom both have escaped. The Japanese vine honeysuckles kept evergreen all winter and the variety Heckrottii in bloom, but now its flower buds have been destroyed. The soft maples (*Acer dasycarpum*) were in full flower, but the sudden frosts have killed the blossoms. The mezeon was in bloom but its flowers have escaped wonderfully. Among bush honeysuckles *Lonicera Standishii* has been in bloom since December and *L. fragrantissima* since January, and under ordinary circumstances both would have lasted till the end of April, but their flowers are completely blackened. *Prunus angustifolia* was headed all over with flower buds swollen almost ready to burst, but are now ruined. *P. tomentosa* was still more advanced, for several buds had burst, and the double flowering *P. myrobolana* was in full flower, but now both buds and blossoms of all are blasted.

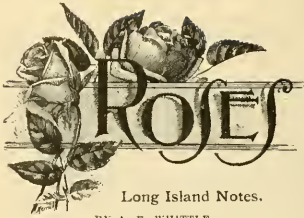
Some *andromedas* were in bloom, but they don't seem to have suffered at all, neither has *Rhododendron Dahuricum*. Many of the Japan quinces, scarlet, pink and white, were in partial bloom, but now all flowers that were open, also bursting buds, have been blackened. The extent of the damage done to yews and hazels I am yet unable to determine; some flowers seem sound enough and others are damaged.

At the same time in general health I don't think I ever saw trees and shrubs, deciduous or evergreen, at this time of the year, look better than they do now. Among hardy herbaceous plants everything seems to have wintered well, even *Montbretia crocosmiflora*, unprotected in any way, is perfectly sound. The southern form of moss pink (*Phlox subulata*) has been blooming a little for over a month, and the white arabis is becoming quite a snowy patch. And a greater number of fall-sown annuals have survived the winter than is usual. *Eschscholtzia Californica*, for instance, is just as fresh and plump as a brown coreopsis. And bulbous plants have come into bloom a little earlier than they do in ordinary seasons. Crocuses, snowdrops and winter aconites have been in bloom for some weeks; Siberian squills are now in, some of the trumpet narcissus are in bloom, but not nearly a full crop yet. Roman hyacinths were about bursting in flower when the searing winds overtook them and scorched their tops.

Glen Cove, N. Y. WM. FALCONER.

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Long Island Notes.

BY A. E. WHITTLE.

Specialists in any profession or business are sure, at any given time, to be conversant with the latest facts pertaining to the particular profession or business. Therefore, if one would know the latest opinions concerning any enterprise of interest, it is to the specialist that attention is directed in order to obtain whatever information is needed.

Among the specialists in rose growing within the vicinity of New York, not any are of more general reputation than Mr. Chas. Anderson, of the John Henderson Co., Flushing, Long Island, and Mr. John Taylor, Bayside, Long Island. These two gentlemen live and each carries on his extensive business only a few miles from each other, and a visit can easily be made to both places in one day.

It is but natural that we should find with all specialists certain general characteristics, and these characteristics are always an earnest attention to details and unceasing vigilant observation. And these features of successful enterprise which all specialists are sure to manifest, are plainly portrayed at the two places under consideration. If here we find roses well grown we may be sure that the general welfare is obtainable only by careful and persistent labor. The methods used are apparent to all who have an eye to cause and effect. Plainly demonstrating that the only secret to success is daily and hourly care.

How often have we found men who are well versed in the principles of the art of growing plants. They can tell you the why and the wherefore of much that we wish to know concerning the conditions underlying successful plant growing. Men who in their youth had a thorough training in both theory and practice, yet who, strange to say, never have their places up to a standard of excellence. The fault does not come from lack of knowledge, but from lack of attention to detail. Each day but impresses this fact more upon close observers. Excellence can only be obtained by leaving undone no minor detail. Anticipate disease and weakness by care and watchfulness, is the golden rule of the maximum of success in plant growing.

Here in these two places this care is evident by the absence of all decaying leaves upon the beds and the plants, no mildew or greenfly allowed to obtain a permanent foothold, thus sapping the life from the plants, no useless blind wood unpruned taking the nourishment that should go to the formation of bloom, no litter in the paths, and no litter under the benches; all in order and system apparent everywhere.

To visit such places is always a pleasure to the student and enthusiastic worker. No matter how hard the times there expenses at any rate are sure to be met. No man ever yet succeeded in making a place pay by allowing any necessary work to go undone from a mistaken idea of economy. It is not in our labor bill that we should ever retrench when we have only the necessary hands to do the

necessary work. We may always be sure that when a place is seen where all the work has received attention just when it was needed, that here no false idea of economy in labor is practiced. Frequently it is noticed that a batch of plants is grown in health to a certain stage, and then because some essential work in tying, potting, etc. is postponed from inability to accomplish it on account of deficient labor, the plants ultimately become only fit for the rubbish heap and all the previous labor is thrown away.

Mr. Taylor at his establishment, besides roses, grows carnations, cypripediums, chrysanthemums and a few violets. The houses are not new—some of them being quite old—and, therefore, excellence of product is all the more creditable. The method of heating is by steam, and like all those who have a relatively perfect system of this mode of heating, Mr. Taylor is quite satisfied with its practical adaptability to the end desired.

The tea roses grown by Mr. Taylor and upon which he depends principally for his crops, are Catherine Mermet, Mme. de Watteville, Mme. Cusin, Perle, Papa and Bride. These roses were all in the most promising condition. Not many flowers at this time, as the plants were generally off crop, but good breaks could be seen everywhere, indicative of large crops later on. Contrary to the prevailing experience, deformed Perles have not been so plentiful this season at this place as heretofore.

Among the newer teas Mr. Taylor gives Mme. Hoste a high place. And so far as personal experience goes, this rose deserves the commendation he bestowed upon it. Its one fault in winter is variability in quality. Upon the same plant and at the same time can be found flowers the size of an average Cook, and some no larger than good Safranons. The only way to obtain a constant high standard is to pick off all buds that only promise small flowers. Another objection could possibly be made, and that is, the rose is a persistent cropper, at one time covered with flowers, then for a period not any whatever to be seen. It is a free grower, not subject to mildew, and susceptible to stimulation. As a summer rose inside it is of no value. Its merit as a summer outdoor rose is not known to the writer.

Meteor also is a favorite with this gentleman, and he intends growing it somewhat largely for next winter. The flower is not at all small and the color is very rich and effective. Seemingly a free bloomer and responding quickly to careful treatment. Probably the best of the continuously blooming red roses. To judge from a cursory view, this rose promises to supply a long felt want.

Princess de Sagan, another red rose, has been tested also within these greenhouses. The writer too has an experimental knowledge of this rose. The size of its flower is its great fault. Very free blooming, exquisite and constant in its coloring, yet the flower is so small that any brisk demand can never be expected for it. For any one who wishes a red rose that can be sold cheap, this is the rose.

Some houses of fine hybrids are also to be seen. One house of Magna Charta was conspicuous for its uniform appearance, and was just coming into bloom at the end of February. These plants at this time were just one year from the cutting; grown outside through the summer and lifted in November, then planted in boxes made for the purpose from 10-inch spruce or hemlock boards. These boards are ripped through the center and are

made into boxes 12 inches wide and four feet long. Two of these 5-inch boards for the bottom with an inch space between them for drainage and one board for each of the sides. These boxes can be placed together, thus saving much room which pots necessarily take up. Mr. Taylor stated that most of these roses averaged five flowers to each plant. If this computation is correct then these hybrids produced a handsome return upon the outlay.

The carnations principally grown here are Silver Spray, for white, one highly recommended; Portia, for red; Orient, for crimson, and Hinsdale, for pink. The latter variety has been generally discarded by other growers, for though it is free flowering the ragged appearance of the flower, owing to the bursting of the calyx, is not a desirable feature. In one house of carnations, gladioli are planted between the rows. These look very promising and no doubt there will be plenty of flowers for Easter. The varieties grown for the purpose are Shakespear, John Bull, Isaac Buchanan and Brencleyensis.

The greenhouses belonging to the John Henderson Co., under the management of one of the proprietors, Mr. Chas. Anderson, are also many of the old style. Some few of late erection. But an apt remark was made by this gentleman. That it is comparatively easy to grow roses at a new place and in new houses. That the plants thrive with the minimum of care in new soil, new houses and a new locality. And that many who commence in this way and succeed in growing roses fairly well, fancy themselves expert cultivators, only in a few years to be confronted with conditions of growth that perplex them to the utmost, and unless there is a thoughtful and observant man to control these conditions, failure will often result. All such conditions as decaying vegetation, wood and soil filled with the eggs and larvae of insects that prey upon plants, benches rotting and fungi spreading, are the necessary features of old houses, and it will certainly require more skill to produce good results with such an environment than when the surroundings are more freed from the germs of disease.

It hardly appears possible that there can be better hybrid roses than Mr. Anderson has in his houses. They can only be described as magnificent. One large house was full of Ulrich Brunner and some others in bloom, and finer flowers and cleaner foliage it would be hard to find. And one surprising statement—at least surprising to the writer—was made. For it was said not one of these hybrids that was in flower was on the place at the first of January of this same year. And yet in bloom by the end of February. Potted, started and in bloom within two months seems hardly credible. Some of us to do the like would have to materially revise existing methods.

Several other houses of hybrids, in different stages of growth, attest the remarkable proficiency attained. Where nothing but praise can be said any other comment is superfluous.

Among the teas several benches are grown of Mme. Falcot. This rose though rather small, is desirable for its free flowering quality. Coming in very handy for those who need a rose that can be sold at a low price. The plants were covered with buds and flowers, and all in fine condition.

Some Cooks are still grown here, and Mr. Anderson retains an enthusiasm for its merits. When well done what rose can surpass it? But the trouble is to



ROMNEYA COULTERI.

grow it well and to grow it at a profit. The Bride has supplanted it, because it can be easier handled and good flowers are usually to be depended upon. But when good Cooks are seen admiration must always be excited, and it is pleasant to find some of the good growers who still retain it in their houses.

Souvenir d'un Ami, another rose some discard, but still here retained. So many flowers can be cut from a given space that it is a profitable rose to grow. It is a rose that will succeed fairly well with less attention than many others. Houses of Perles, Papas, Mermets, etc., all in fine condition and ready to produce fincrops through the coming spring months. Niphotos was the only rose in poor condition, and the reason is a mystery to Mr. Anderson. This again proving that to the most experienced, problems in growth, sometimes beyond solution, are often met with.

A very fine lot of La France; fine flowers and free from black spot. Mr. Anderson thinks that Duchess of Albany is desirable and will occupy a place by itself and will not supersede La France, one rose being in as much demand as the other.

In neither of these places are Bennets or Beauties grown. The place is yet to be found where every rose will succeed.

Mr. Anderson has great expectations

of the climbing Perle that he has lately introduced. It is a strong grower and just as free flowering as the other Perle we all know so well, and wherever a climbing rose can be grown to advantage this rose should have a place.

Albany, N. Y., March 5.

Romneya Coulteri.

This charming flowering shrub deserves to be brought to the notice of florists. It belongs to the poppy family of plants, and has roots and foliage similar to those of the boconia. It attains a height of 6 to 8 feet and one of these plants in full bloom is a magnificent sight. For cut flowers it is unsurpassed. It delights in a loose mellow soil and is of easy cultivation. In its wild state it blooms during the months of June and July, but under cultivation the flowers follow each other through the whole summer. Whether adaptable for forcing remains to the experimental faculty of one of our brother florists. The flowers of the romneya are of a pure luscious white, on which the yellow stamens lie like a golden crown. At first sight it reminds one of a single white peonia, but delicate in build it lends itself with more grace to floral designs. The seed is slow to germinate lying in the ground sometimes for six to eight months, but the plant is easily propagated from

root division or cuttings. This plant attracted the attention of English horticulturists some years ago and two colored pictures of it have appeared in the *London Garden*. We in the United States should not be backward in availing ourselves of all the beauties of our native flora. The accompanying picture is a photograph taken from a branch which had, however, been allowed to fade slightly before being subjected to the camera. Try the romneya and you will be satisfied that we need not go to foreign countries for floral novelties.

H. H. BERGER.
San Francisco, Cal., Feb. 21, 1890.

Romneya Coulteri was one of the leading novelties last year among flower seeds; and seedsmen, both here and in Europe, are again pushing it this year. But notwithstanding its marvelous beauty in California, and elsewhere where it is hardy and thrives well, it is not likely that it will become a popular plant with florists in the northern and eastern states, because it is not hardy in these states. It can be wintered safely, however, in a cold pit, for it will bear a good many degrees of frost with impunity. It is eminently a summer-blooming plant, and an eastern grower who has cultivated it for a dozen years reports that while old plants bloom freely in summer they show no disposition to bloom in winter even when ripened early, rested, and then gradually introduced to warm quarters. It is a lovely flower, however, and highly deserves the attention of amateurs and plant lovers generally. The same eastern grower also informs us that fresh seeds germinate with him in four to six weeks' time after sowing. There is a note about this beautiful flower in the *FLORIST*, March 1, 1889, page 330.

W. F.

New Plants Again.

In a lengthy article in the *FLORIST* of February 15, Mr. Whittle effervesces on enterprise in general and particularly so in the florist business. He especially emphasizes the fact that only by enterprise can a man hope to succeed, and proceeds to say that one may make many attempts yet also many failures. He farther states that the idea prevails that expenditure is enterprise. That may have been Mr. Whittle's experience, and we may so infer from his doleful lament over that grand chrysanthemum Mrs. A. Carnegie. He must be a very bold man indeed that would affirm that the above chrysanthemum was not an acquisition to the varieties then in cultivation. If Mr. Whittle was so enterprising as to spend \$2 for a plant of this variety and failed in growing it, that is no reason why he should publicly denounce it; others have made a success of growing it, and I have no doubt but that the disseminator of it also made money, and that it will continue to be grown as an acquisition to the varieties then in cultivation.

Mr. Whittle would make me say that I favor indiscriminate purchase of new plants. This may have been the method pursued by him, and for that reason called down his ire on new plants. But I can assure him with all confidence that new plants will continue to be purchased (and with discrimination), and that there will be money made on them. He farther states that many of us have neither the time nor the money, etc. I am sorry for him and would again advise him to let the new plants alone, and as I said before, let his more enterprising brethren reap the benefit of their time and money spent in visiting exhibitions, and growers of new plants, where I can assure Mr.

Whittle they are not hid under a bushel, but open to criticism and discrimination. I don't believe there will be any distinction made by the raiser of new plants to the florist doing a catalogue business and those who do not, his goods are in the market for sale and I believe it is quite immaterial to him whether the buyer does a catalogue business or not providing he can supply the cash wherewith to pay.

It is decidedly unfair to cry down any particular plant because we are not in a position to make money on it. It may have a value far above a profitable flower producing plant and fill a place in horticulture as acceptably and as profitably (to some) as a plant that will pay as a flower producer. I will freely admit that there are a great many new plants sent out that are nothing short of rubbish and they who buy indiscriminately and also they who make a practice of selling them knowing them to be rubbish ought sooner or later to reach the end of their purse even if it should prove to be a long one.

JOHN DALLAS.

Fairfield, Conn.



Cut Flowers.

But a few years ago the main object in gathering collections of orchids for commercial purposes was for the sale of the plants. The sale of the flowers was of secondary importance. In fact, but few of the retail florists ever dreamed of using these beautiful flowers in their work, and as for the commission men, no orchid flower was ever seen upon their counters.

At the present time there are still many who are dubious as to the ultimate success of the business of growing and selling orchid flowers. No doubt, in many of the smaller cities, the demand for orchid flowers is still very insignificant. Naturally so. People move in crowds, and until the fact is known that orchids are generally used by society in the great cities, this demand will be of no moment. But time will remedy all this, and the day will soon be here when every florist may expect to use these flowers in some of his orders.

As proof that this business is experiencing a marked increase the evidence may be cited of the number of collections of orchids where the flowers have a decided commercial value. Only last fall Mr. Manda informed the writer that every orchid flower he could send to New York found a purchaser. Mr. Siebrecht says the same, stating that not an orchid flower from his large collection is ever wasted. Others make the same statement, and we can but accept it as based upon verified experience.

Formerly no orchids were seen in florists' windows. Now it is the exception to see one without some temptingly displayed. Not only displayed, but if one enters inside he will see them used. Used for bridal and corsage bouquets, mantel and table decoration. The artistic part of the florist's business has within the last three or four years experienced a great impetus, and it is the part of the wise man to observe and profit by the signs of the times.

No one fact concerning the extent of orchid cultivation is more surprising than

the immense quantity of the flowers of *Cypripedium* insigne that are now grown and sold. Why this flower more than other orchid flowers? It is far from being the most beautiful. The reason is to be found solely in its comparative cheapness. It is easily grown, quickly propagated and flowers freely. This teaches us that when many other orchids can be increased materially in quantity and the flowers of the same consequently lowered in price, that they also will be used in like abundance.

It is gratifying to most of us to find that this is so. We would have the public appreciate and love other flowers than roses, violets and carnations. Not that any one would or can supersede these necessities. But let us do all we can to increase the variety. Not to be content with continual travel in one groove.

These thoughts were somewhat strengthened by a visit to Messrs. Siebrecht & Wadley's fourth annual orchid show. Perhaps it is safe to assert that the increased demand in New York for orchids is in a great measure due to the education and influence this annual show has exerted upon the citizens of that city. Some may smile at the supposition that this exhibition has an educational tendency, and will claim that it is purely a business enterprise, created and sustained entirely for the object of making money. Undoubtedly this is the purpose. Any other aim in a business firm would be Quixotic. But though the direct tendency is the extension of one firm's business, yet the indirect tendency if the enterprise is successfully conducted must be for the benefit of all engaged in orchid growing for commercial purposes. Of the many thousands who view the exhibition each year that it is held a proportion is sure to have awakened within them some admiration for orchids, an admiration which in many traceable cases is sure to create a desire to buy and possess, and it must indeed be a very narrow view that would suppose all these future purchasers can only benefit one particular firm. This exhibition, held this year from February 19 to February 28, may be again regarded as a success. Larger crowds than ever were in attendance and surprise is felt that these orchid exhibitions should succeed so well and so many other exhibitions in New York, of chrysanthemums, etc., should so lamentably fail.

A. E. WHITLEY.

Books on Landscape Gardening.

The Literature of Landscape Gardening is a larger one than most people suppose, and the best books on the subject are undoubtedly those which were written about the end of the last century and the beginning of this. I refer to such works as Uvedale Price's "Essay on the Picturesque," Knight's "Landscape" and Gilpin's well known "Picturesque Tours," all of which aim at making the study of nature the true and only method to be employed by those who would be landscape gardeners. Walpole's "Essay on Modern Gardening," Whately's "Observations," and the several comprehensive works of Repton and of Loudon all treat of the subject in the same manner, but of modern English books, there are few of great value. In America, however, the late Mr. Downing wrote several of importance, and such writers as Olmsted, Scott, Cleveland, Copeland, and a few others have all contributed something to our knowledge of the subject.

I append a list of the more noteworthy books which have been published in England and America, and also those

French and German works which I consider to be the most important.

HENRY SARGENT CODMAN.

Brookline, Mass., March 5, 1890.

HORACE WALPOLE—"A History of the Modern Taste in Gardening."

GEORGE MASON—"An Essay on Design in Gardening."

THOMAS WHATELY—"Observations on Modern Gardening, illustrated by descriptions."

SIR WM. CHAMBERS—"A Dissertation on Oriental Gardening."

WM. MASON—"The English Garden."

WM. GILPIN—"Observations relative to Picturesque Beauty."

WM. MARSHALL—"Planting and Rural Ornament."

RICHARD PAYNE KNIGHT—"The Landscape."

SIR UVEDALE PRICE—"An Essay on the Picturesque."

HUMPHREY REPTON—"Observations on the Theory and Practice of Landscape Gardening."

HUMPHREY REPTON—"Fragments on the Theory and Practice of Landscape Gardening."

J. C. LOUDON—"An Encyclopedia of Gardening."

RICHARD MORRIS—"Essays on Landscape Gardening."

SIR WALTER SCOTT—"On Ornamental Plantations and Landscape Gardening."

WM. S. GILPIN—"Practical Hints upon Landscape Gardening."

A. J. DOWNING—"A Treatise on the Theory and Practice of Landscape Gardening adapted to North America."

A. J. DOWNING—"Cottage Residences." EDWARD KEMP—"How to lay out a Garden."

JOSHUA MAJOR—"The Theory and Practice of Landscape Gardening."

C. H. J. SMITH—"Parks and Pleasure Grounds; or practical notes on Country Residences, Villas, Public Parks and Gardens."

A. J. DOWNING—"Rural Essays."

R. M. COPELAND—"Country Life: A Handbook of Agriculture, Horticulture and Landscape Gardening."

F. J. SCOTT—"The Art of Beautifying Suburban Home Grounds of Small Extent."

J. WEIDENMANN—"Beautifying Country Homes. A Handbook of Landscape Gardening."

H. W. S. CLEVELAND—"A Few Hints on Landscape Gardening in the West."

H. W. S. CLEVELAND—"Landscape Architecture as applied to the wants of the West."

J. M. MOREL—"Theorie des Jardins." RENE GERARDIN—"De la Composition des Paysages."

C. C. L. HIRSCHFELD—"Theorie der Gartenkunst."

J. LALOS—"De la Composition des Parcs et Jardins pittoresques."

GABRIEL THOUIN—"Plans raisonnees de toutes les Especies de Jardins."

FIRST HERMANN VON PRICKLER MUSKAT—"Andeutungen uher Landschafts Gartenerei."

LE COMTE DE CHOULOT—"L'Art des Jardins."

G. MEYER—"Lehrbuch der Schönen Gartenkunst."

E. PETZOLD—"Die Landschafts Gartenerei."

A. ALPHAND—"Les Promenades de Paris."

LE BARON ERNOUF—"L'Art des Jardins."

H. JAGER—"Lehrbuch der Gartenkunst."

EDOUARD ANDRE—"L'Art des Jardins. Traite Generale de la Composition des Parcs et Jardins."



VIEW IN ONE OF THE ORCHID HOUSES AT LANGWATER GARDENS, THE COUNTRY HOME OF MR. F. L. AMES
NORTH EASTON, MASS

G. EICHLER—"Handbuch des Gartnerischen Planzeichnens."
K. E. SCHNEIDER—"Die Schöne Gartenkunst."

W. P. TUCKERMANN—"Die Gartenkunst der Italienischen Renaissance-Zeit."

H. JÄGER—"Gartenkunst und Garten Sonst und Jetzt."

ARMAND PEAN—"L'Architecte Paysagiste."

Chicago Notes and Comments.

BY EDGAR SANDERS.

Calling the other day at the new greenhouse plant of J. C. Vaughan, started last year at a place called Western Springs, a few miles out on the C. B. & Q. railway, I was greatly struck with the way Tidal Wave carnation was flowering, and its apparent usefulness for the cut flower man. There were about seven or eight hundred plants set out on benches in the ordinary way. But had been cut all to pieces the entire winter whenever a cutting could be got hold of to make a new plant of. Now, thinks I to myself, here is a great change from most carnation houses at this particular time of the year. Here we have a case with no grass and abundance of flowers, while in most cases it is all grass and not flowers enough to pay the fringe. Would it not pay to keep the shoots thinned out early in the season where they are found to grow too much to blind shoots? The healthy character of the great green blooming flower stalks in this particular case must also have assisted the plants in their efforts to prolong life by new shoots (cuttings), else the severe knifing would have exhausted the plants, which did not seem the case by their vigor. It looks as though Tidal Wave is to have a run.

The new rose, a mixture of the blood of the tea and polyantha, Clotilde Soupert, looks charming with its clear cut almost formal shape and singular character of bearing pure pearly white flowers, again others with a charming rosy pink tint, shading down to a silvery white and all on the same stem. Although not so crowded as the polyantha class, there are from three to ten buds on a shoot, are of a goodly size and if not destined to become a fashionable cut flower it is surely fine for amateurs and summer growth. For out of door culture in the south it ought to be a beauty.

There were good flowers of Wootton, also of the Malmaison sport Princess Victoria—what a great rose she is. The red La France—Duchess of Albany, like the rest, managed to flower finely in spite of the cutting fiend.

Gardeners' Magazine in Milwaukee in 1838. In looking through an old "Farmers' Register" published at Petersburg, Virginia, in 1838, I came across the following: "We received lately the first number of a new agricultural paper, published at the unheard-of town of Milwaukee, which is further northwest (as it would seem from the title) than the art of spelling has yet traveled. It is called the *Wisconsin Cultivist and Gardeners' Magazine*." The editor copied a price-current it contained for April 17 as a curiosity and to show the high prices prevailing in the ambitious young town. The best flour being from \$10 to \$12 per barrel, other things in proportion. The paper was small quarto, monthly at \$1. Are there any copies of this western ambitious gardeners' magazine extant we wonder?

Another extract to show what this town was about these times. The *Green Bay Intelligencer and Democrat* of Sep-

tember 1835 says: "The Milwaukee, a correspondent at the mouth of the Milwaukee speaks of their having a town already laid out; of selling quarter acre lots for five and six hundred dollars; and says that by fall there will be one hundred buildings up, that some fifty people are living there." The year 1836 seems to be the starting year for the town, two years before the issuance of the paper in question.

Boston Notes.

Crocuses in full bloom March 15.

The representatives of the Boston Club who attended the Philadelphia Club's supper, came home much pleased with their trip.

A delegation from the Mass. Hort. Society visited the greenhouses of R. M. Pratt, Esq., on Thursday March 20, to see the orchids. Mr. Allan has good reason to feel proud of his success this year. The show of dendrobiums is especially rich and has never been equaled here.

One of our most widely known and much respected florists was reported to have died suddenly in the railroad station a few days ago. Telegrams of condolence were sent to his house out of town, arrangements were made to have flowers sent to the funeral, and other evidences of sorrow at the unwelcome news were plenty, when it transpired that the whole affair was an idiotic attempt at a "practical joke." It is difficult to conceive of the heartless cruelty that will permit a man to carry his disregard of humanity to such an extent, or the vacancy of mind which allows him to find pleasure in such a contemptible deception. Surely no one envies him his present position.

W. J. S.

Notes on Seed Novelties.

BY WM. PALCONER.

AQUILEGIA CHRYSANTHA ALBA.—A white-flowered form of our Colorado mountain golden columbine, and, no doubt, a desideratum. But we cannot reasonably expect that all of the seedlings will have white flowers. The typical or golden form is one of the boldest and best of the genus, a splendid garden plant, and the latest blooming of all the columbines that are in cultivation. Its spurs are always long.

AQUILEGIA STUARTI.—is a hybrid between Grigor's form of *A. glandulosa* and the Caucasian *A. Wittmanni*, and partakes strongly of the *glandulosa* nature. But it is stronger and has larger flowers and more of them.

ARNEBIA CORNUTA.—One of Dr. Regel's recent discoveries in Central Asia, an annual, and a species that, I believe, has come to stay. It has long been known to botanists, however. And according to the *Gardener's Chronicle* it is found in Siberia, South Eastern Russia, Algeria and Tunis. Mr. Charles A. Dana, when in Germany three years ago saw it in perfection in Max Leichtlin's garden, Baden-Baden, and was delighted with it and brought me home a glowing account of it. When so critical a judge is captivated by a little annual, I am convinced it has pronounced merit. The blossoms are yellow and each one when it opens has five large black spots upon its face; day after day these spots lessen in intensity till the third day when they disappear altogether and the blossom is simply yellow. This may seem, to many, as incredible, but the same peculiarity may be seen in *Arnebia echioides*, a perennial species, for many years a common inmate of our gardens. Only 12 seeds in a packet. *Arnebia Griffithi*, another annual species, from North Western India, of somewhat similar type has been grown in English gardens, but, probably, is not now.

CHIRYSANTHEMUM MULTICAULE.—A little daisy-like annual with golden yellow flowers. A native of South Africa. The seed packets are generously filled and the seeds germinate freely.

CENTAUREA CYANUS fl. pl. or double-flowered corn flower. It is double, or semi-double rather, in the same way as is *Gaillardia Lorenziana*. The seed is good; ours germinated just as well as did those of the common form.

CERATOTHECA TRILOBA.—An annual bignonia from Natal. Grows 6 to 7 ft. high, has trifoliate leaves, axillary clusters of large bluish-purple flowers and martynia-like seed vessels.

CEPHALANDRA PALMATA.—A luxuriant vine from South Africa, with large palmate leaves, reddish orange flowers and carmine cucumber-like fruit.

CYCLOLOMA PLATYPHYLLUM (not "*Cyclotoma platyphylla*" as it appears in the seed list).—This is the Great Cyclone plant of the Black Hills." That may be so, at the same time it is only an annual weed commonly known as Winged Pigweed and according to the "*Botany of the Rocky Mountains*." It is found "from Colorado to the head waters of the Missouri and eastward to the Mississippi."

DELPHINIUM BRUNOXIANUM.—A plant that pops up every now and again as a novelty, and I don't think it has come to stay this time either. It is a dwarf, pale blue, musk-scented species from the high Himalayas.

GLOXINIA "DEFIANCE".—An erect flow-

ered variety and said to have blooms "of an intense, glowing, crimson-scarlet" color. This may be all right, but when we are told that it "for richness exceeds anything hitherto found in the genus" we had better sow some seed of it and find out. If it is finer than Veitch's, Suttons' and the other crack strains that we grow it must be marvelous. Two of our American firms have made specialties of gloxinias this year and issued colored plates of them: one of these plates is very poor, the other very middling, and neither anything like as good as their gloxinias, which I have seen in bloom. Dreer too has made a feature of gloxinias for several years.

DODECATELON CLEVELANDI.—A species (or variety?) recently discovered in southern California and named for Mr.



ARNEBIA CORNUTA.

D. Cleveland of San Diego. Where found wild it grows in great abundance, blooms in spring, and its flowers run from white to rose pink and purple. Large quantities of its seed must have been gathered and distributed for it is offered in most every catalogue, European as well as American. The seeds germinate readily, however, for ours have come up nicely in about 15 days. It is hard to tell which of the western forms of *dodecatheon* are good species. Dr. Gray undertook it once, see *Botanical Gazette*, XI, page 231, and Mr. E. L. Greene has done it since, in 1888, with, of course, different results.

DIANTHUS CARYOPHYLLUS MARGARITE.—Popularly called Queen Margaret's Carnation and named in commemoration of Queen Margaret of Saxony, the consort of King Humbert. It is said to be a cross between the Indian pink and the double garden carnation, to bloom the first year from seed and to bear blossoms of several colors and which never burst their calyces. Certain it is that the seeds germinate freely, for ours have done so, and the young plants are growing vigorously.

GALACTIS TOMENTOSA.—A handsome prickly leaved, thistle-like plant from the Mediterranean regions; the leaves are spotted with white above and covered with cottony down on the underside. Grows about two feet high and has lilac-purple flower heads. If sown early it blooms the first year; if sown late few bloom. It has milky juice. It is an old plant in gardens, but, in its way, for fancy bedding it is superseded by chamæpeuce.

HELIANTHUS ARGOPHYLLUS TEXANUS (but why *Texanus*, when *H. argophyllus* itself is a Texas plant?)—Called the Texas "Silver Queen" sunflower, and said to be a marked improvement on the old *H. argophyllus*. It is an annual, 6 to 8 feet high, of pyramidal contour, branched from the ground up, and it has cottony leaves and young wood and medium sized single flowers. A handsome plant, but easily broken by wind and rain storms. The height here given is greater than that accorded to it in the seed list, but *H. argophyllus*, which I have grown from Texas seed for many years, has always grown over 6 feet high with me.

LATHYRUS SPLENDENS. "*The Pride of California*."—Serenio Watson in Bot. Cal. II, page 442, gives it as a form of *L. vestitus* "The common species of the southern part of the state (California), from Sonoma county to San Diego, on dry hills in the Coast Ranges; very variable." A perennial species with rose colored flowers. Of the common everlasting pea (*Lathyrus latifolius*) we also have a superior form called *splendens*.

MOMORDICA INVOLUCRATA.—A new species of the Balsam Apple Vine and indigenous to the Drakenberg Range, Natal. It is a perennial plant but probably not hardy; if the roots are lifted and wintered as we do other growing tubers, however, we may expect to save them over till the following spring.

MELOTHRIA PUNCTATA (*Zebuaria shavias*)—One of the ornamental cucumber vines, of vigorous growth and bearing multitudes of small fruits. A native of South Africa.

MYOSOTIDUM NOBILE, "New Giant Forget-me-not." A remarkably handsome Forget-me-not-like perennial from New Zealand, where it grows in damp sand by the seaside. It has several times before now been introduced to cultivation, but with poor success.

"**RUMEX ROSEUS**" is offered by Burpee. Said to be an annual with bright red flowers and showy green red-veined capsules and exceedingly ornamental. I do not know it. Now among the docks and sorrel one would hardly expect to get a very ornamental garden plant, but about a dozen years ago I used to grow *Rumex sagittifolius*, a climbing vine, that bore the greatest profusion of red capsules and which had a striking and beautiful effect. I would much like to get it again.

PRIMULA ROSEA is offered by some. It is a lovely little pink flower from the Himalayas, and has been in cultivation for ten or a dozen years. In its germinating qualities it has always behaved with me in the same way that *P. Japonica* does, namely, while freshly ripened seed grow freely I never could get seed kept over till spring to germinate. It may have acted differently with other people, though.

VIOLA CUCULLATA ALBA.—A splendid wild violet to let scatter itself in the border or rockwork and it blossoms in the greatest profusion in early spring, and self-sows itself all around. It is the white flowering form of our common swamp violet. But it isn't "ever-blooming," and although it has become a weed in our borders, I never knew it, under ordinary circumstances, to "bloom from October till May." On the contrary, the whole cucullata race are the most pronounced deciduous violets that we grow.

OSTROWSKIA MAGNIFICA appears in a good many catalogues, but I am informed that the seed crop failed.

CAMPANULA PUNCTATA.—A free-bloom-



THE WHITE TORENIA FOURNIERI.

ing and useful hardy perennial, white and easily gotten up from seed. But it has long been in cultivation and seed lists too.

ARGYREIA TILLOFOLIA, a perennial vine, a tropical convolvulus.

DATURA CILORANTHA, double flowering.—Has large, drooping, fragrant, yellow flowers. It is not a new plant at all either in gardens or seed lists, but well worth pushing again. Like several other of our finest daturas, it is a tender perennial, but as it flowers freely the first year from seed we usually treat it as an annual.

EUPHORBIA HETEROPHYLLA.—Last year it may be remembered, Mr. Goodell, of Dwight, Mass., "sent it out" in order to get ahead of his brethren, but he didn't have nearly enough stock of it. All have plenty, however, this year. It is nice enough in its way, rather coarse, not very showy, useless for cut flowers and may be somewhat disappointing. But the seed is good and germinates well.

ASTERS.—Among the China asters we have several claimants for attention, but the new white edged Triumph and the blue flowered Comet are the most striking. Speaking of asters, I may say that that field of Comet I saw at Vick's last August was the finest aster sight that I have ever seen. Every flower like an immense full-double Japanese pink chrysanthemum.

ECKFORD'S SWEET PEAS in packets come to us every year. I don't dispute their fineness at all, but I do find fault with the quality of the seed.

SALVIA SPLENDENS VAR. CLAVANAD is said to be an earlier blooming and longer lasting form than that in common cultivation, also that it has longer flower spikes.

SALVIA PATENS LILACINA.—In *S. patens* we have one of the most splendid blues in flowers, and we shudder at the thought of a lilac variety of it. *S. prunelloides* that was resurrected a year or two ago is no good; *S. farinosa* is a pleasant, pale blue, continuous blooming species, and *S. Picheri* an excellent fall-blooming species with deep blue flowers. None of them are quite hardy.

TORENIA "WHITE WINGS" is a white flowering form of *T. Fournieri*. It was sent out two or three years ago, then it seemed to drop from notice till this season, when I find it again occupies a conspicuous place. I have grown it continuously since it first appeared, and find it as easy to grow, free blooming and long-lasting as the typical form, and, in its way, a real pretty little flower.

TROPEOLUM LOBBIANUM, VAR. ASA GRAY.—A perennial nasturtium said to have pale primrose or soft sulphur-yellow flowers—the lightest color yet produced.

ARISTOLOCHIA ELEGANS, a novelty of a few years' standing and still high priced. A tropical vine, easy to raise, free growing, free blooming, and one of the prettiest flowering of the genus. The flowers are more odd than useful. I saw it in beautiful bloom at Mr. Kimball's at Rochester, N. Y., last summer.

Nomenclature.

S. A. F. Committee on Nomenclature.

JAMES D. RAYNOLDS, Riverside, Ill., Chairman.

Roses:

ROBERT CRAIG, 49th & Market Sts., Phila., Pa.
EDWIN LONSDALE, Chestnut Hill, Phila., Pa.
ERNEST ASMUS, West Hoboken, N. J.

Carnations:

A. E. WHITTLE, Albany, N. Y.
JOHN THORPE, Pearl River, N. Y.
WM. FALCONER, Glen Cove, N. Y.

Palms, Ferns, and like Decorative Plants:

CHAS. D. BALL, Holmesburgh, Phila., Pa.
JOHN BURTON, Chestnut Hill, Phila., Pa.
W. R. SMITH, Botanic Garden, Washington, D.C.

Chrysanthemums:

JOHN THORPE, Pearl River, N. Y.
WM. FALCONER, Glen Cove, N. Y.
J. M. KELLER, Bay Ridge, N. Y.

Bedding Plants:

G. L. GRANT, 54 La Salle St., Chicago, Ill.
ROBERT CRAIG, 49th & Market Sts., Phila., Pa.
J. M. KELLER, Bay Ridge, N. Y.
A. E. WHITTLE, Albany, N. Y.

Orchids:

DAVID ALLAN, Mt. Auburn, Mass.
BENJ. GREY, Malden, Mass.
WM. FALCONER, Glen Cove, N. Y.
J. FORSTERMAN, Newtown, N. Y.

Mrs. Alpheus Hardy.

SYN. "OSTRICH PLUME CHRYSANTHEMUM."

At page 367 of the AMERICAN FLORIST I see your correspondent, Mr. W. W. Herron, calls attention to this subject, and very justly complains of the annoyance it causes him in his trade. He is not the only one who could raise a complaint against such practices by all accounts I hear. But what strikes me most, as I doubt not it will many other readers of the FLORIST, is the comment immediately following his remarks by the editor, where it says "This is rather a knotty problem. It seems unwise to multiply names and still we can hardly object to catchy, popular names when the correct name is also given." Now if I understand the meaning of this it is virtually endorsing the whole line of renaming plants by any one who wishes to do so to suit any advertising scheme or otherwise. True, there is a proviso, but what good is that? The original name can be as Mr. H. says it is in this case, printed in small type and the "catchy" one in a large striking type and all who see it will scarcely ever notice the original name.

If the AMERICAN FLORIST, of all papers in the country, is going to countenance such practices then it is utterly useless for the Society of American Florists to have a committee on nomenclature. Better let them be discharged at once and let the matter drop for ever. If a chrysanthemum already having a name which is recognized as a suitable one, and one, by the way, which almost every one who has ever heard of a chrysanthemum must be familiar, as no other name was ever so thoroughly advertised in connection with this family of plants before, why in common justice to the public at large should another name be given to this plant. The name "Ostrich" is no more applicable to this particular flower than a cabbage is to a clam or an oyster to an onion. True the flowers have some short hair like protuberances on the petals which give it a distinct appearance from other white chrysanthemums, but I fail to see wherein it can be compared to an

ostrich plume. If the "catchy" name is to be admitted, then the whole list of substituted names of the past and present must be admitted also; but why are they necessary? Is it not much more just, fair and honest to call a plant by its right name? Anything else it may be necessary to say about it can be done in the description of the same without infringing upon any one's rights or laying ourselves open to the charge of trying to deceive the public by misrepresentations. I think it would be a good thing to thoroughly ventilate this subject in the *FLORIST*; let us hear from others, as the subject is an all important one to all parties, more particularly to those who wish to do an honorable business. JOHN N. MAY.

[Let us have the expression of opinion by all means. We will make no further comment until the returns are all in; then we may add another word. However, there is hardly any necessity for "ventilation"; the matter ventilates itself, for the correct name appears in conjunction with the other, and this fact must be borne in mind.—Ed.]

Piqueria Trinervia.

This plant has been in cultivation 25 years or more under the name of *Stevia serrata*, which is an entirely different plant. The piqueria in cultivation grows 3 to 5 feet high; it is woody at base and has 2-ranked, pubescent branches and opposite, lanceolate, acute, serrate, three-nerved leaves and branching corymbs of flowers. Its involucre is campanulate and consists of 4 or 5 bristly-tipped scales; the seed is angular and without pappus. *Stevia serrata* is a herbaceous plant about 18 inches high, branching, and the upper part pubescent. Its leaves are alternate, linear, lanceolate, serrated at top and the petioles attenuated and smooth. Corymbs are fastigiate. The involucre is cylindrical, few leaved and equal, the receptacle naked and the pappus double. J. H. BRUMMEL.

Carroll Station, Baltimore, Md.

[Kindly send us good specimens of what you consider the misnamed plant for identification.—Ed.]

"Genista Canariensis."

My attention has just been called to some plants which arrived here a few days ago from a New York firm labeled *Genista canariensis*, which were exactly the same as our old friend *Cytisus racemosus*. Is it a case of substitution? or has the plant one name under the stars and stripes and another under the Union Jack? Any information through your columns on the subject would be very acceptable to many of your readers and to yours etc. JAMES MCKENNA.

Montreal, Canada.

"DAUGHTREY REGINA BEGONIA."—Some one has sent me the Portsmouth (Va.) *Progress* of March 2 last, containing a half column notice of a begonia for which the above name is proposed. It has the root and growth of the "gigantea family" and the foliage of "Schmidtii," "the blossom is like the gigantea rosea, save that it hangs pendant," and it is likened unto other begonias as a graceful woman is to a man laborer. "It is the result of Mrs. Dr. Daughtrey's skill and knowledge and is new to florists and seedsmen." "This Schmidtii gigantea" probably means B. Schmidtiana X B. semperflorens gigantea, for in describing new plants we must be precise. If it is absolutely new

and originated with Mrs. Daughtrey, then call it "Begonia Mrs. Daughtrey," and not the ludicrous name given above. And exhibit a specimen of it at the convention of the S. A. F. in Boston next August. W. F.

Insects and Diseases.

Conducted by CHARLES F. BAKER, Agricultural College, P. O., Ingham Co., Mich.
Send specimens of unidentified insects and diseased plants to him at above address.

The Carnation Twister.

A package of carnation shoots were lately received from G. Lester Hollis, of South Weymouth, Mass., which were presumably affected with the "carnation twister." By growing the shoots I have been able to make a few observations which may help to solve what has been called a "knotty problem." That the plants were affected by something was very evident. The leaves were curled and twisted up, and in many places the stems were bent back on themselves, while all of the plants had a sickly, dried out appearance.

One florist, who was consulted in regard to it, assured me that it was caused by "a very small moth, the larvae of which bored in the stem," while another claimed that it was not caused by an insect, but was a diseased condition. I found neither moths nor evidences of any "disease," but I did find a plant louse,



INSECT CAUSING THE "CARNATION TWISTER"
MUCH ENLARGED.

or green fly, and these in considerable numbers. They were, for the most part, safely ensconced at the base of the leaves between the leaves and stem.

They are aphids of the genus *Siphonophora*, to which also belongs the much dreaded Wheat Plant Louse. It has evidently not come to the attention of entomologists or florists till within a short space of time, for in a large amount of literature (entomological and floricultural), I found no mention of it or the insects causing it. The insect is about three thirty-seconds of an inch long, and its body pear-shaped. Its color is a light green about the body and head, while the tips of the nectaries, beak, feet and antennae are brown and the eyes black. The legs are long and slender and the antennae almost as long as the body and articulated with tubercles situated on the front part of the head. This describes only the apterous female as no winged forms were found. The female crawls away by herself and, after finding a convenient place, usually the axil of a leaf, gives birth to a number of young lice, which immediately begin feeding on the juice of the plant, which they suck out through their long jointed beaks. Being almost the color of the plant, they can not be detected by a careless glance, but close examination at once reveals them.

Just as soon as evidences of their presence are noticed, steps should be taken towards their extermination. If an attempt is made to grow cuttings from affected plants, it will be very probable that they also will have the "twister," as the females in search of a breeding place crawl to all parts of the plant and to adjoining plants. In the greenhouse tobacco smoke is undoubtedly one of the best remedies. Out of doors kerosene emulsion applied forcibly in a fine spray from all sides will soon rid the plants of lice. This may be prepared by mixing in a tin vessel one pint of kerosene, one quart of soft soap and between one and two quarts of water. This should be heated, continually stirring it until nearly boiling. It should then be diluted with water until one part in fifteen is kerosene. Numerous other remedies have been recommended, such as sprinkling with ashes and lime and spraying with strong soap suds, weak lye or tobacco water, the latter being made by boiling one pound of the stems or leaves in a gallon of water.

It may seem like presumption to suppose that such a common pest as the green fly was also the cause of the "twister," but when we see the effects of the work of nearly related insects on the Snowball and other plants, it does not seem at all improbable.

Slugs Among Violets.

I dislike to contradict any one, but when Mr. John Mull says (page 388) that tobacco dust will not hurt the violets, I shall have to disagree with him. I tried that remedy thoroughly last year and my experience was, that as long as there was any strength to the dust that the slugs did not trouble the violets, but it had to be renewed, and after a time I found that the plants did not like it, although it did not immediately affect them. I would not mention this only I am afraid that others will try this, and unless their tobacco is different from any I have had they will be sorry in the end.

Then R. P. Jeffrey & Son say use bran with paris green; I will try this, although I had been recommended to try bran alone before and found that the slugs would not touch it. Perhaps their taste is cultivated.

Perhaps I ought to state here that I find tobacco dust most excellent to keep down the slugs on benches holding pot plants; spread over the gravel or ashes two or three times during the winter, they will not trouble anything standing on it, and it also keeps down green fly to a great extent, seldom having to fumigate where it is so used. R. E. SHIPLEY.

Chatham, N. Y.

—In your issue of February 15 I notice Mr. S. P. Cutler asks for a remedy for slugs. I have found slaked lime put round tender seedlings as lettuce, peas, etc., will keep slugs off, and I believe if scattered under the runners and around the violet plants would prove successful. It is used a great deal in England, where slugs and snails are so numerous, and would be worth trying here.

W. K. H. ABBOTT.
Mimeapolis, Minn.

SEND IN YOUR records of number of blooms cut from a given number of plants, occupying a given space, during a given length of time. Give the number cut during each month if possible.

OUR NEW TRADE DIRECTORY is now ready. It gives a complete and accurate list of the florists, nurserymen and seedsmen of the U. S. and Canada. Price \$2.



Cost of Production.

Mr. Chitty forgot to charge himself with commission or labor for selling his flowers, which will amount to at least 25 per cent, between rent of store, waste and incidentals which would bring his profits down to about \$636.

As to quantity of flowers cut from a given amount of glass, a well known Jersey City florist told me he cut 40,000 Grace Wilder flowers a week for weeks at a time, all long stemmed, from a house 80 feet long by 18 feet wide so that he can cut more in two weeks than Mr. C. can in twelve months out of one third less glass.

JOHN BIRNIE.

Jersey City, N. J.

—A grower for the New York market writes:

"Mr. Chitty states that he sold his carnations for \$2 per 100. I have never known carnations to average over \$1 per 100. This would show a profit of \$99.68 instead of \$848.71 from his house. We are not all so fortunate as to have a store in which to place our goods as Mr. Chitty has, and we have to sell in the open market. In New York carnations sell in the fall months for 50 cents, 75 cents and \$1 per 100; in winter they sometimes reach \$3, and again in spring drop back to 50 cents and 75 cents. You will thus see that it is impossible to get an average of \$2 per 100 when the flowers are sold in the open market."

In considering the price realized by Mr. Chitty it should not be overlooked that all his flowers were on long stems, and judging from the flowers he has sent us at times, of the finest quality. Several leading Chicago retail florists who viewed a large bunch of Grace Wilders sent us by Mr. Chitty declared that they could easily get double usual prices for such flowers. It is quite probable that the wholesale price of carnation blooms throughout the country and during a season will average something less than \$1 per 100. But we have no doubt that Mr. Chitty could have cut a much larger number of blooms had high quality not been a desideratum.

The Buttercup.

On page 368 of the last issue of the Florist, H. G., of Springfield, Mass., seeks information regarding Buttercup carnation—temperature, soil and general conditions of culture, to which I take pleasure in writing a few words in reply, because ever since my first acquaintance with this splendid variety in 1885, my success in its culture has been of a most gratifying nature. I therefore feel it incumbent upon me to speak a good word for it wherever and whenever opportunity offers.

Under ordinary favorable circumstances Buttercup is an immense grower, often throwing up shoots as thick as one's thumb for 12 or 15 inches in height before the first signs of flower buds appear, and such shoots will sometimes produce 12 or 15 flowers of the finest possible description. I have seen plants of this variety flowering as described, while seemingly hanging on to a little light poor soil with the bulk of its roots ex-

posed during the heat of summer, and under conditions indicating general neglect; with these facts in view I think it reasonable to conclude that neither heavy nor rich soil are essential to the successful culture of the Buttercup.

My soil is a dark sandy loam, similar to what would generally be regarded as ordinary good garden soil, but quite light in texture, and as the soil is pretty much all alike there is no chance for favoritism. The plot intended for the growth of my carnations next summer is now covered (besides the six inches of snow that fell yesterday) with a close growth of red top; last June a heavy crop of clover was cut from it, the clover when well started again was plowed under early in August, it was then well harrowed and heavily seeded with red top and harrowed again. As soon as the weather is favorable this plot will be deeply plowed and otherwise prepared for the carnations. I may say that late in the fall this same plot was enriched by a large heap of refuse matter such as rotten tobacco stems, cleanings from the houses and sheds, leaves, weeds and rubbish of every description, all thrown together and allowed to decompose, this spread over the surface and plowed in with the clover and red top be all the fertilizing material my carnations will receive the coming summer, and this may be regarded as a fair example of my practice for several years past, and generally with moderately fair success—of the preparation of the ground for summer growth of my carnations. From experience I feel prepared to say that a heavy summer growth of carnations is by no means an essential feature of their successful culture, and this is more particularly the case with sorts like Buttercup that are liable to make a heavy growth in a strong, highly enriched soil. I think with a light soil and a moderate use of thoroughly decomposed manure that H. G. can grow the Buttercup at Springfield, Mass., with perfect success.

As regards temperature, I have never discriminated in favor of Buttercup or any other variety, but think 50° or 55° sufficiently high as a maximum night winter temperature for all carnations, and even a much lower temperature seems to induce a wonderfully robust growth; and although the flowers are somewhat longer in coming I am very much inclined to think that it pays in the end.

H. E. CHITTY.

Paterson, N. J., March 20, 1890.

COST OF PRODUCTION.—Should not Mr. Chitty deduct 50 per cent from net profits on his carnation house to go to credit account of his store?

J. W. Y.

New York Odds and Ends.

I set out one morning recently to spend a day in haunting my old camping grounds at Astoria, L. I., for it was at the nurseries of Isaac Buchanan, in that slow Long Island village, that I found my first "job" after coming to this country. "The flowers that bloom in the spring" have many times died since last I saw the old place, and it was with a good deal of regret that I noted the desolation time had wrought. But two or three of the houses are now standing, and these contain nothing of interest; the "foreman" tells me that Mr. Buchanan has sold the place to private parties who will take possession first of May next. The greenhouses will then be torn down, the ground divided into building lots, and so another of our pioneer florist places will have been wiped out.

Continuing my pilgrimage I ran foul of Mr. Pritchard's place and spent a long and pleasant hour with that gentleman. Long before he added brilliancy and weight to American floriculture, Mr. P. was a shining light of the craft in England, carrying off so many exhibition honors that his British brethren were truly delighted when he pulled up stakes and came to America. His houses at Astoria contain a little of everything, but the "elephant" on exhibition just now is a particularly fine variety of coreopsis, name unknown, seed of which he got from France two years ago. It bloomed in his grounds last summer for the first time, and the flowers proved quite popular with the cut flower trade. Half a dozen of the plants were lifted late last fall and planted in a cool house; at the time of my visit they were just coming into bloom, so that I had an opportunity to get a fair idea of this acquisition. It certainly looked attractive, the flowers are a bright golden yellow, one and a half to two inches in diameter, and are borne in the greatest profusion. The plant is perfectly hardy, and in catalogue parlance, ought to be in every collection.

Carnations and bulbs are W. H. Siebrecht's specialties. Of these, particularly the latter, enormous quantities are grown annually for the cut flower trade; every inch of available space in his dozen large greenhouses is utilized, in addition to which there is a finely arranged shed where the bulbs are stowed until removed to the houses, a much better plan than the more general one of burying them outdoors. This shed is also used for retarding or "keeping over" a crop when occasion requires. A batch of gladioli were coming on nicely, varieties used being Shakespeare, Eugene Scribe, Isaac Buchanan and Brencleyensis. Bulbs were started in pots November 2, '89, subsequently planted out on the benches, and according to Mr. Siebrecht's reckoning, they will flower in about eighteen weeks from date of starting. A couple of houses are given up to carnations; of the several varieties grown Mr. S. considers Brilliant (syn. Portia) to be the best red, and Hinz's the very best white. One small house, or pit, is used for violets; viewed in the light of others we have seen, the plants looked healthy, but W. H. isn't altogether satisfied, he is quite convinced that there is a disease to which the violet is particularly susceptible and that its ravages are chiefly felt in the vicinity of large towns and cities. His theory that the disease is caused by the foul air common in the neighborhood of cities and manufacturing centers, is by no means the most improbable of many we have heard.

David Dean has one of the neatest, cleanest little places on Long Island. Mr. Dean's houses are devoted chiefly to roses and carnations, and both are handled in a style that leaves nothing to be desired. A house planted with Miles' spiral mignonette Mr. Dean regarded as the most profitable house on his place. It seems difficult to obtain seed of the genuine Miles' spiral, more's the pity, for it's a variety well worth having, and to those who don't know any better, the following will convey some idea of what may be achieved in the way of "big" mignonette with this popular variety. Last season '88-'89 Mr. Dean selected a good strong flowering shoot of "Miles spiral" to which he devoted special attention; he watered it intelligently, kept it carefully tied up to a stake, etc., so that the shoot waxed strong and the flower spike grew and continued to grow "till it couldn't grow any more higher," and the

aforsaid flower spike having attained its majority measured exactly 50 inches in length. This is no "yarn" my brothers, at least I'm not responsible if it is; I have given it to you as it was told to me by the gentleman himself, and considering his vocation he adheres very rigidly to facts. In the rose houses I was specially interested in a batch of Woottons, they were planted July, '89, but so far had not given satisfaction. I also saw this rose in fine condition at W. C. Wilson's, where it is regarded as a first rate variety.

Having already heard a good deal for and against the Wootton, I said to myself and the person I addressed agreed with me, that it might be interesting to have the opinions of a few leading florists in New York city concerning it. The first man I interviewed was Mr. A. LeMout. Generally speaking he thought the rose hadn't yet been properly or sufficiently tested; in his own trade he found it to go well, and considered it A No. 1 for decorative purposes and the very best shipping rose he ever handled. His main objections were its scarcity and lack of fragrance. Klunder was brief and to the point; he likes the Wootton when well grown and esteems it a good rose particularly for decorative work. Thorley regards it as a very poor keeping rose and further complains that it doesn't work in harmoniously with others of similar color such as Bennett, etc., but he agrees with LeMout that the Wootton will have to be more generally grown before its merits can be properly determined. Mr. Young (Thos. Young, Jr.) could only say that Woottons consigned to his house were quickly bought up by the retail dealers. He considers it quite an acquisition, and as to its keeping qualities he had heard no complaints and added facetiously that he "couldn't keep a sample on hand long enough" to decide the matter for himself. Mr. Siebrecht, of Siebrecht & Wadley, arranged his silk hat in a becoming position and proceeded to discuss the Wootton with considerable energy. His views, briefly put, are: That Wootton is a good rose, does well early in the season, that it will doubtless do well through the spring months, but during the dark short days of winter it doesn't develop satisfactorily. He regards American Beauty, of which he is an enthusiastic admirer, and Mermet as the best selling roses in the market to-day, and I find that the principal retail florists in the city without exception, pronounce Mermet to be by long odds the most popular rose of its class with their customers. A. W. M.

Steam Heating.

In reply to query by John Ralph, Saratoga Springs, N. Y., as to length of time that steam apparatus can be left without attention, I herewith give my experience.

I have had steam in my houses four years. I leave my boilers eight to ten hours without attention and if weather is not stormy as much as 24 hours. But to do this there must be a large fire space and I burn very hard egg coal. No doubt there are other readers of the *FLORIST* who have the same trouble, and to such I am willing to answer any questions that I am able to. WM. SALING.

Rahway, N. J.

In reply to John Ralph's query, page 376. We put in steam last fall for the first time, and it works well. We keep our fire 12 hours without attention in this way. At 3 p. m. we shake out all ashes from the grate, leaving only live clean coals and put on enough coal

to last until 8:30 p. m.; then we shake out grate again until the fire is bright under the grate and fill with coal even to the bottom of feed door, if boiler has a return flue put more coal onto the back end and slant down to feed door. We sift all our ashes and pile the cinders in a convenient place near the boiler. Then we take the watering pot and sprinkle the cinders until they are damp throughout—not too wet but just right, and then we cover this coal we have just put on with cinders about three inches deep, even it all over with the poker, shut the door and hook on chain to automatic damper and in 15 or 20 minutes, according to the draft of your chimney, your automatic damper closes, your steam is up. Then lock up your house and go home, next morning at 8 or 9 o'clock you will find your fire there, and steam too. Springfield, Mass. H. GRANT.

I have been heating with steam for several years and always had to have a fireman until this last winter. I have put on a self-regulator instead of opening the draft doors as they generally do. I have it arranged so it opens the doors of the fireplace and regulate it with weights. If the steam rises up to a certain point—say 10 pounds—it will open the doors and the steam will keep up for several hours, until it commences to drop lower than 10 pounds, when it will close the doors gradually and the steam will rise. There is no danger of getting the steam too high. I use soft coal and can leave my apparatus without attention in zero weather for four hours, when merely at freezing point for five to six hours. I have found the regulator to work very satisfactorily and it saves fuel.

Kansas City, Mo. A. F. BARDE.

In answer to Mr. Ralph's query in last issue I would say I have used the Parks Patent boiler for the last five years. I start my fire about 4 p. m., at 8 I fill with coal and leave for the night. If it is cold, say down to 15°, I will throw on about half a bushel of coal at 8 a. m. If the thermometer stands 40° above I do not go near it until 4 p. m., twenty-four hours, and keep up 2 to 4 pounds of steam, thus far I have used twenty-two tons of coal and heat about 25,000 cubic feet of space.

Edw. S. HASKELL.

New Bedford, Mass.

In reply to Mr. Ralph I will say that I never leave my boiler more than three or four hours through the night. I see to the fire at 9 p. m., 1:30 a. m. and 5 a. m. For coal I use one half Cumberland to one half pea, with very good results, but if I employed a night fireman I think I would use all pea coal. I have used steam for four years and I like it very much; prefer it to hot water or flues, both of which I have used. I use 1½ and 1½-inch pipe with a 3-inch main. A 13 H. P. boiler heats 7,000 feet of glass very easily. J. W. MINOTT.

Cape Elizabeth Depot, Me.

In reply to Mr. John Ralph's inquiry on steam heating, I find that unless thermometer falls below 28° Fahrenheit I can fire at 10 p. m. and need not return until 7 the next morning. When colder than this a night fireman must be on hand. J. W. Y.

Germantown, Pa.

In the *AMERICAN FLORIST* of March 15 Mr. John Ralph inquires about steam. On two of the coldest nights we had this winter, when the thermometer went to 8°, my steam boiler ran itself for ten hours without attention. In milder

weather it will run for fifteen hours. Three pounds of steam maintained a temperature of 50° in two houses. I make a practice of getting up once during the night to be sure all is well.

Ridgewood, N. J. F. LORILLARD.

Philadelphia.

The seventh annual supper of the Florists' Club of Philadelphia, was even more enjoyable than those which have preceded it, which is saying a very great deal. Among those present from a distance were John N. May, Summit, N. J.; Wm. J. Stewart, Boston; M. H. Norton, Boston; J. L. Dillon, Bloomsburg, Pa.; M. A. Patton, Lowell, Mass.; A. Dimmock, Summit, N. J.

The menu was so elaborate that it is given in full below:

—1890—

BLOW-OUT, No. 7,

FLORISTS' CLUB OF PHILADELPHIA

N. B.—Any one having fasted for more than three days, not admitted. Better tackle a hungry route.—SHUSTER.

Twenty first Day of Lent, in the Evening, at Half-past Seven,

AT W. H. SHUSTER'S,
822 ARCH STREET, PHILADELPHIA.

ME-AND-YOU.

OYSTERS.	
Violet Points	Half-Salary
Consomme, a la Growers	Lenten Sauce
FISH.	
Heron—Chestnut St. Style Darby Road Croakers	
Weak Fish—Westcott's Catch Fish Ceranium	
COLD DISHES.	
Frozen Buds from Boston	
Cold Shoulder—"Wootton"	
	Ice House Valley

GAME.

Old Sledge—New Handle Poker—in the Stoke Hole
Ten Pins—"Summit" Style

Fo(u)ls—Hot, Right off the Bat

ROASTS.

Roast Bull-heads Muchrun Catchup
Bellyful of Yellows Blackspot Sauce
Chrysanthemum Stakes Black Fly Dressing
Christmas Roast Growers' Sass

ENTREES.

Snails on Toast Red Spider Salad
Caterpillar Croquettes
Imported Scale Whale-oil Dressing

VEGETABLES.

Cabbage Roses, Steamed
Commission House Truck (all kinds)

PASTRIES AND PUDDINGS.

Green Fly Pudding Tobacco Sauce
Stuffed Sprinklers—New Style Roscbug Tapioca
Standard Pot Pie, 10-inch—Whildia

LIQUORS.

Hot Water—Under Pressure
Ball's Palm Mixture—Surplus
Fir Tree Oil
Tobacco Water
Whale-oil Essence

FRUITS AND NUTS.

Big Head—Served To-morrow Morning
Tough Kalsin—The Cash
Growers' Chestnuts No Sun, Etc., Etc.

The Botanical Laboratory at the Michigan Agricultural College Burned.

AGRICULTURAL COLLEGE, March 24.—At 12 o'clock last night the botanical laboratory was discovered to be on fire and two hours later nothing remained except the tall monumental chimney. The students worked under the direction of Lieut. Simpson, but having only one hose and a weak stream of water they could do little beyond checking the fire a little. The fire started in the third story

and worked slowly down. The building was of wood, cost \$7,000 and was the first built in this country and one of the largest and best arranged botanical laboratories on this continent. The Wheeler herbarium, comprising 7,000 species of Michigan plants and representing 25 years of work, is burned. The collection in the museum, worth \$4,000, is half destroyed, including the collection of woods which took first premium at the centennial. The students saved the instruments, including forty microscopes worth \$2,000, also nine-tenths of the herbaria. Dr. Beal's library and manuscripts, which were on the first floor, are saved. The loss to science can not be estimated in dollars and cents. The museum represented years of search and collection by Dr. Beal and his assistants, and can never be fully replaced. Mr. Wheeler says if he is granted ten years more of life he will replace his herbarium. —*Detroit Free Press.*

SITUATIONS, WANTS, FOR SALE.

Advertisements under this head will be inserted at the rate of 10 cents a line (seven words) each insertion. Cash must accompany order. Plant ads. not admitted under this head.

SITUATION WANTED—As gardener; 15 years' experience in nurseries and greenhouses. References given. Address S. M. care Am Florist.

SITUATION WANTED—By young man in private or florist establishment, in or near Chicago; is steady, honest, trustworthy. Address F. S., 29 47th Street, Chicago.

SITUATION WANTED—In nursery or private place by a Danish gardener and florist; 30 years of age; single; just arrived from England. Best of references. Address P. box 62, Short Hills, N. J.

SITUATION WANTED—By an active young man, of good character, as assistant florist in a good establishment—est. preferred. Guarantees strict sobriety. Address H. MUTH, Newburyport, Mass.

SITUATION WANTED—By a gardener; competent respectable man of experience and ability. Age 35; married, small family; knows English, French and German. Good reference. Address 910 Clybourn Avenue, Chicago, Ill.

SITUATION WANTED—By single man; experienced florist; understands growing of roses and all kinds of cut flowers. Also experienced in putting up steam or hot water boilers. Apply to J. WIEDEY, Mt. Washington, D. C.

SITUATION WANTED—By a thoroughly competent Swedish gardener and florist, 25 years of age, 8 years' experience. Private place in some western State preferred. Unexceptionable references. Address X, care American Florist.

SITUATION WANTED—By a young man, florist, wishes steady engagement by 1st of April; good in propagating and growing all kinds of cut flowers and plants; 15 years' experience. Address H. S. care Am Florist, Chicago.

SITUATION WANTED—By a German gardener; single man, age 27, who thoroughly understands his business. Good references can be given. Address 302 Alamo Plaza, San Antonio, Texas.

SITUATION WANTED—As gardener, private or commercial place; age 27; 13 years' experience; German; single; capable of taking charge of first-class greenhouses. Best of references. Address C. W. care American Florist, Chicago.

SITUATION WANTED—By Scotchman, age 29, married, as head or assistant on good place; understands care of glass, lawn and vegetables; strictly sober. Good references. Address G. & F. care American Florist, Chicago.

SITUATION WANTED—By young man as rose grower on private or commercial place; thoroughly understands his business. With best references. Will be in the first of April. Address J. B. Box 248, Madison, New Jersey.

SITUATION WANTED—As foreman, or to take charge of large private place; am a single man; have 11 years' experience in rose and propagating; also tropical plants; have good recommendations and references. Address F. S. care Am Florist.

SITUATION WANTED—By a practical English gardener and florist, competent in all branches; private or commercial place. Good rose, carnation, violet grower; married; age 35; best references. Address G. W. 313 Wecker Ave., Brooklyn, E. D. N. Y.

SITUATION WANTED—As gardener on commercial place; 15 years' experience. Understands the growing of plants, cut-flowers, fruit and vegetables. English; single; age 21. First-class references. Address G. FAURET, 1351 1st St. N. E., Washington, D. C.

SITUATION WANTED—As foreman in a commercial place; thoroughly understands growing roses, carnations and the cut flower trade in general, also palms, ferns and plants generally. 30 years' experience. Good references. Address J. E. NELSON, care American Florist, Chicago.

SITUATION WANTED—As gardener by an Englishman, age 37, married, one child. Has had 22 years' practical experience in every department of his business. Best of references can be given. Address GARDENKER, care P. R. Quinlan & Co., Syracuse, N. Y.

SITUATION WANTED—By practical florist; young man; single; 6 years' experience in growing roses and all greenhouse stuff for cut flower market and shipping trade; makes and fills designs. Good references in the North and South. Address E. L. care American Florist, Chicago.

SITUATION WANTED—As gardener and florist; 15 years' experience in growing roses in rose greenhouses, vines, vegetables, etc. (can take full charge of gentleman's place). Only first-class place desired. Address A. C. care B. Cliff, 286 Washington St., Newburgh Orange Co., N. Y.

SITUATION WANTED—By a competent propagator and plant grower, in a first-class eastern establishment, to take the best of references (from some of the leading English and French commercial establishments). For further information, address PLANTSMAN, care J. A. Peterson, 41 West 4th St., Cincinnati, Ohio.

WANTED—Florists and nurserymen's catalogues. CHAS. A. RIEMAN, box 37 Connerville, Ind.

WANTED—An assistant florist; single man; must be up to the standard; active, industrious and honest; good recommended. Wages, \$3.00 and board. JOHN RECK, Bridgeport Conn.

WANTED—A single man who thoroughly understands propagating, growing roses and cut flowers for market. Give references; state salary required. German preferred. A. care Am Florist.

WANTED—Gardener; a good, sober, industrious man with experience to take care of private greenhouse and grounds in Evanston. Address with references, A. C. B. 81 Board of Trade Bldg., Chicago.

WANTED TO RENT—For term of years, florist business of about \$500 to \$1,000 feet of glass, in good running order, vicinity of New York—75 to 100 miles. Address C. M. care American Florist, Chicago.

WANTED—Florist who thoroughly understands the business of propagating, growing roses and cut flowers for market; wages \$75 per month; references required. ROSE WILCHIT, 115 E 4th St., Spokane Falls, Wash. Ter.

WANTED—A first-class florist; a man with some executive ability, who thoroughly understands the propagating and growing of cut flowers, and a general line of plants for commercial purposes. Address J., care American Florist, Chicago.

WANTED—In commercial place, live, smart, middle-aged, married man, as first assistant; must be proficient in growing all kinds of cut flowers, particularly roses—and not afraid of work. Wages \$8.00 per month and house; if satisfactory \$300 the first year. To an experienced, industrious, sober man, steady place. Address with age, nationality and references, Box 20, care American Florist.

FOR SALE—One Hitchings No. 1 conical boiler, in use 3 years. Price, \$8.00. M. R. SAUNDERS, Bradford, Ill.

FOR SALE—Windmill with pump and pipe: all in good repair. Cheap. GEO. S. BELDING, Middletown, N. Y.

FOR SALE OR TO LET—Two greenhouses 12x100 feet, well stocked, and two acres of ground adjoining; in nice Ohio town. For particulars, address L. care American Florist, Chicago.

FOR SALE—Two large greenhouses full of fine stock in good locality. Want cash. Will sell or lease good to purchaser. Address Clara Place, bet. Powell and Western Ave., Chicago.

FOR SALE—Florist business; city 30,000 inhabitants. Splendid retail trade in and out of city. Well stocked and equipped. For reasons and particulars, address OTTO, care American Florist.

FOR SALE—Half interest in a first-class establishment in one of the best western cities. Big money invested in the business. Failing health is cause for selling. Address J. care American Florist, Chicago.

FOR RENT—Greenhouse; good town 5,000 population; good size of house back. Rent the square. Will sell stock and rent house. Water works and electric lights. Cause for selling; sickness. CHAS. P. CASKEY, Greensburg, Ind.

FOR SALE—A florist establishment, one green-house 75x18, and two 75x10 feet each, heated by hot water (Weathered); 25 acres of good land, some wood and pasture, plenty fruit; dwelling house, barn and other out-buildings; good well and cistern. All buildings new and in good condition. 15 miles from New York City, and one mile from depot. Price, \$1,800. Address P. O. Box 103, Ramsey's N. J.

FOR SALE—Greenhouses containing 7,000 square feet of glass heated by hot water; water supplied by water works. Also cottages of five large rooms, long lease of land, situated in a thriving town of 12,000 inhabitants, 12 miles from Chicago. 30 trains daily; excellent schools. Most complete. For further particulars and price, apply to or address JOHN S. FOISTER, 738 Oak Avenue, Evanston, Ill.

FOR SALE—Florist and seed store, with 5,500 feet of glass on three houses, heated with hot water, with a full and complete stock of plants; conveniently located in the center of the city, five minutes from depot; and everything sold over the counter. A good trade in the way of making up decorations and funerals. Reason for selling, want to go west. For particulars, address J. W. BAIR, 38 & 40 West 33rd Place, Elizabeth, N. J.

FOR SALE—A well appointed wholesale floricultural establishment; 32,000 square ft. of ground, covered with glass, in a well located part of New York City. All cut flowers are sold on the premises to first-class retailers, and the demand exceeds the supply. Excellent real-estate silver for selling. Price, \$30,000, one-third cash, balance on bond and mortgage. For particulars, address THOS. W. WEATHERED'S SONS, 46 and 48 Madison Street, New York City.

FOR SALE—The leading florist and seed business in Dallas, Texas, the largest city in the State; population 55,000, demand for flowers constantly in excess of supply has led to the formation of a first-class seed business, making money and growing every day. Greenhouse attached to store, in heart of city. Splendid opportunity for good live man. For sale till 1st of May. Best of reasons for selling. Correspondence solicited. Address FT. WORTH NURSERY & SEED CO., Dallas, Texas.

FOR SALE—A grand opportunity to any one about building greenhouses. The undersigned will sell with or without land their entire plant a great bargain, consisting of about 23,000 feet of glass, 700 feet of ventilating apparatus (Hitchings & Co.), 7,000 feet of 4-inch pipe, two No. 18 and No. 15 one No. 16 and one conical boiler, all in first-class order, and made by Hitchings & Co. Houses only been built a short time. For further particulars, apply to J. EROS, P. O. Box 212, South Orange, N. J.

FOR SALE—The leading florists business in Topeka, Kan., the Capital and largest city of the State. Demand constantly in excess of supply. Population doubled in the last five years. People cultured, and one of the finest cities in the West. Large shipping trade. Most widely advertised and best known florists business in the State. Business flourishing, and can be indefinitely developed by cash and energy. Best of reasons for selling. Can be had at a bargain for cash. Correspondence solicited. Address PAUL M. PIERSON & CO., Topeka, Kansas.

Wanted A large spee men plant of **Areca Lutescens** Send description of plant and price.

C. B. WHITNALL & CO., Milwaukee, Wis.

WANTED.
First-Class Vegetable Gardener,

To take charge of 20 acres. Must be single man, of good habits, and able to furnish good testimonials as to character and capability. Address, with references, Supt. Northern Insane Hospital, ELGIN, ILL.

100,000 ROSES 100,000

We have doubled our facilities for growing Roses of all sizes, and will be glad to price your lists whenever and whatever you may need. Three acres under glass. Most complete and most select collection in every department. Send for Wholesale and Retail Descriptive Catalogue.

Address **NANZ & NEUNER,**
LOUISVILLE, KY.
Mention American Florist.

THE OAKS ROSE NURSERIES
ROSES
Meteor, Mme. Cusin, Perles, Niphetos, Mme. de Watteville, Brades, Papa Gontier, Mermets, Magna Charta, and Gen. Jacqueminot.
CARNATIONS.
Hinsdale, May Queen, Orient, Silver Spray, Paxton and Buttercup.
Strong healthy plants at lowest prices. Write for particulars.
JOHN H. TAYLOR,
BAYSIDE, L. I., N. Y.

ROSES.

Good strong young 2-inch pot plants at \$30 per 1000; strictly my selection of Teas, Hybrid Teas, and Noisettes, true to name and good varieties, from last summer's propagation.

Gen'l Jacqueminot, at \$5 per 100, \$40 per 1000.
GERANIUMS.—Good varieties, my selection, at \$30 per 1000. Single and double. Mme Salleroi, at \$5 per 100. ROSE GERANIUMS, \$5 per 100.

FEKNS.—Adiantum Cuneatum, and Adiantum Decorum, from 3-inch pots, at \$8 per 100.

LATANIA BARBONICA.—5-inch pot plants, at \$4 per dozen. 4-inch pot plants, \$3 per dozen.

ANGELOPS VEITCHI.—One year old plants, at \$6 per 100.

PRIMULA OBSCURA, 4-in. pot plants, doz. \$1.80.

FUCHSIAS.—Good varieties, 4-in. pots, \$3 per 100.

CYTISUS RACEMOSUS.—Strong, 3-in. pot plants, \$3 per doz.

VINCA VARIEGATA.—2-in. pot plants, \$3 per 100.

HARRISIMIL, 2 in. \$3 per 100.

PETUNIAS.—Double, 12 varieties, at \$4 per 100.

GEO. W. MILLER,

1748 N. Halsied St., CHICAGO.

FORCING ROSES

BROWN & GANFIELD,

Springfield, Ill.,

OFFER TO THE TRADE:

Brides, Mermetts and Bon Silenes, from 4-inch pots, wintered in cold frames, at \$10 00 per 100.

They further beg to announce that they will receive orders, April and May delivery, for the following named varieties of roses, from 2½ & 3-in. pots:

PERLE DES JARDINS, LA FRANCE,

MME. DE WATTEVILLE, THE BRIDE,

CATHERINE MERMET, MME. CUSIN,

SUNSET, NIPHETOS.

Also a limited quantity of AMERICAN BEAUTY and W. F. BENNETT.

Write for price list.

ROSES.

A very large stock of young Roses of the leading bedding and forcing varieties. Also large stock of same in 5 and 6-inch pots.

The best and newest of CHRYSANTHEMUMS.

CARNATIONS and general greenhouse stock.

Trade list mailed on application.

JACOB SCHULZ,

Louisville, Ky.

IMPORTED H. P. ROSES,

Worked low on the Manett Stock, offer the best results to the florist, blooming freely and giving plenty of cuttings for propagating quickly. Fine plants for sale by the 100 or 1000, at low rates.

Price lists to applicants. Address

WILLIAM H. SPOONER,

JAMAICA PLAIN, (Boston), MASS.

ROSES.

LARGEST COLLECTION IN THE WORLD.

We DO OFFER all Novelties for 1897 ready in 3 inch pots. 90 NOVELTIES for \$5.10 about middle of April.

Ask for ILLUSTRATED CATALOGUES.

SCHULTHEIS BROTHERS,

ROSE GROWERS,

AT STEINFURTH, NEAR NAUHEIM,

HESSE, GRAND DUCHY, GERMANY.

The New Rose

CLIMBING NIPHETOS.

READY April 1st. Price, \$1 each; \$10 per doz.

Any one having a space for a climbing rose should have it. Also fine healthy stock of Perles, Niphotos, Mermetts, Brides, Gontiers and Bous.

Prices on application.

SALTER BROS.,

12 W. Main Street, ROCHESTER, N. Y.

ROSES.

We are now prepared to take orders for delivery after April 1, on the following vars. 2½-in. pots:

AM. BEAUTY, L. L. FRANK, PERLE,

BRIDE and NIPHETOS, at low rates.

5,000 2½-in. Perles, ready for immediate delivery.

Wholesale trade list mailed free upon application. Address

GERMOND & COSGROVE,

Box 69, SPARKILL, Rockland Co., N. Y.

ROSES FOR FLORISTS.

We offer the largest and most complete stock of Roses in this country, straight 2½-inch plants, propagated from thoroughly matured field grown plants, and grown in ordinary soil without manure or any other stimulating material whatever.

OUR ROSES RESIST DISEASE, START QUICKLY, GROW RAPIDLY, AND ALWAYS GIVE BEST RESULTS.

NEW AND SCARCE ROSES OF SPECIAL VALUE: THE QUEEN, best pure white

DOCTER KEYMOT, new hardy crimson, ever-bloomer; COMTESSE JULIA HUNYADY, superb

golden amber; SAPHO, New English Tea; MME. HOSTE, best new forcing rose; JOSEPH

METRAL, CAPT. LEFORT, ERMINE METZ, MISS ETHEL BROWNLOW, METEOR,

MME. DE WATTEVILLE, MME. CUSIN, BARNES M. WERNER, SUNSET, VISCOUN-

TESS OF FOLKESTONE, PAPA GONTIER, and hundreds of others. All the choicest and

best varieties, new and old. DUCHESS OF ALBANY, the famous Red La France; GLOIRE DE

MARGOTTIN, new scarlet perpetual; EARL OF DUFFERIN, SILVER QUEEN, BARNES

ROTHSCHILD, MME. GABRIEL LUZET, MERVEILLE DE LYON, MME. MASSON,

MRS. JOHN LAING, DISMORE, PAUL NEYRON, LA FRANCE, COQUETTE DES

ALPS, and all the best Hardy Roses.

NEW POLYANTHUS, NEW HYBRID TEAS, CLIMBERS and MOSSES. OVER 500

VARIETIES ROSES IN STOCK. Send your lists and have them priced. We want your orders, and

will make prices as low as possible.

HYDRANGEA GRANDIFLORA.—A leading specialty, large stock strong open ground plants, all

sizes at very reasonable prices. All the newest and best hardy, ornamental shrubs. New Hardy

Hibiscus, New Althea, Blanche, Abouham Plectrum, Ruiss variegated Althea, New

Deutzias, New Weigela, Sweet Scented Honeysuckles, New Chinese White and other

Wisterias, Clematis Akebias, and all best Hardy Climbing Roses. VERY LOW.

CHRYSANTHEMUMS in 100 finest selected sorts. MOON FLOWERS, extra strong, propagated

from blooming plants, finest Summer Flowering Bulbs, Gladioli, Tuberoses, and

Japan Lilies. FLOWER SEEDS for FLORISTS, including the celebrated Imperial German

Pansies in 35 separate shades, and all choicest strains of Flower Seeds for florists' use.

satisfaction always guaranteed. WHOLESALE PRICE LISTS FREE ON APPLICATION

to FLORISTS, MARKET GARDENERS and DEALERS ONLY.

ADDRESS THE DINGEE & CONARD CO.,

ROSE GROWERS AND SEEDSMEN, WEST GROVE, PA.

C. M. PRESBY, CHAS. F. ANDERSON.

JOHN HENDERSON CO.,

Flushing, L. I.

ROSES A SPECIALTY. ROSES.

THE CLIMBING PERLE DES JARDINS.

TO OUR PATRONS, AND THE TRADE GENERALLY:—We are convinced that this Rose

will prove of permanent value—indoors and out. Its continuity of flowering, vigorous

growth, large flowers, beautiful in color and form—a true Tea—must commend it to all.

Strong plants Ready April 1st, \$1.00 each; \$10.00 per dozen.

All the Old, New and Forcing varieties on hand, at lowest prices.

WRITE FOR CATALOGUES AND PRICES.

METEOR.

No untried novelty, free bloomer, no cropper, long stems, bright color, always

brings a fancy price, clean, healthy, and sells itself. This has been our experience

with the Meteor the past two years. It is certainly one of the most profitable forcing

roses in cultivation to-day.

We have a fine stock of the above in 2½ inch pots, at \$8 00 per 100. We can also

supply from 2½-inch pots, the following varieties, clean, healthy stock:

Perles \$5 00 Mermetts \$5 00

Papa Contier 4 00 Niphotos 5 00

Sunset 5 00 Mme. Cusin 5 00

Mme. de Watteville 5 00 La France 7 00

Brides 5 00 American Beauty 6 00

Our Illustrated Catalogue of Plants and Seeds mailed free on application.

L. L. MAY & CO., NURSERYMEN, FLORISTS St. Paul, Minn.

AND SEEDSMEN,

ROSES. ROSES.

INCLUDING THE SPLENDID NEW VARIETIES

DUCHESS OF ALBANY, MADAME HOSTE, ETC.

ALSO ALL THE BEST STANDARD VARIETIES OF

TEAS, HYBRID TEAS & HYBRID REMONTANTS.

ALSO ALL THE BEST BEDDING VARIETIES.

I AM now prepared to fill orders for the same in Large or Small quantities, TO THE TRADE,

from stock that cannot be surpassed by any in the country, at prices that are as reasonable as first-

class can be produced for. Also MIGNONETTE SEED, MY OWN SELECTION.

TRADE LIST NOW READY.

JOHN N. MAY, Summit, N. J.

Roses. Roses.

Madam Cusin, Madam de Watteville, Catherine Mermet, Bride, American Beauty,

Papa Gontier, Perle, La France, Niphotos, Bon Silene. Fine, clean,

healthy stock only sent.

COLEUS CUTTINGS.

STRONG ROOTED CUTTINGS OFF YOUNG PLANTS, only \$7 00 per Thousand.

GOLDEN BEDDER alone, \$10 00 per Thousand.

FRANK McMAHON, Sea Bright, N. J.

GEO. JACKMAN & SON

beg to offer a large and well grown
Stock of the following:

ROSES—In choice and exhibition varieties.
RHODODENDRONS—Of the best named sorts, and
Hybrid Seedlings well set with buds.
AZALEAS—Good named sorts, also Mollis and Pon-
tium set with buds.
CONIFERS—In large collection.
SHRUBS—Ornamental and Flowering.
FOREST TREES—Of sorts, all grown by thousands.
CLIMBERS—In variety, including their celebrated
Clematis.

G. J. & Son have also to offer a NEW CLEMATIS

MRS. BARON VEILLARD,
a handsome variety of the Jackmanii type.
It is a vigorous grower, bearing a profu-
sion of distinct light lilac-rose flowers, of
medium size, from July to October.

PRICE, 90¢ PER DOZEN.
CATALOGUES FREE ON APPLICATION
TERMS—Cash with order, or satisfactory trade
reference from unknown correspondents.

WOKING NURSERY, WOKING, ENGLAND.

GEO. THOMPSON & SONS

Offer to the trade the following stock in
prime condition:

Per 100
Allamanda Hendersoni, 2½-in pots \$4 00
Allamanda Nerifolia 5 00
Hibiscus, six fine varieties 3 50
Jasminum Revolutum, strong . . . 4 00
Papaver Orientale 4 00
Coleus, fine collection 3 00
We also offer the following Roses
from 2 inch pots:
Lamarque, Coquette de Lyon . . . 4 00
Bongere, Cath. Mermet 4 00
Compt de La Barthe, Arc Duke Chas. 4 00
Chrysanthemum, Nympha 6 00
Lemon Scented Geranium, per doz. 75
We also offer twenty of the newest and best
Chrysanthemums, besides a list of the standard
old sorts. Send for our wholesale price list,
which contains Roses and all other plants not
named in this list. Address,

GEO. THOMPSON & SONS, LOUISVILLE, KY.

Choice Stock Cheap.

Per 100
Geranium, in 20 choice varieties, 2-in. \$5.00
Geranium White Swan, 2-in. 5.00
Rose Geranium, 2½-in. 4.00
Single Primroses, finest strain 2½ and 3-in. . . 4.00
Primula Obconica, 2-in. 1.00
Smilax, strong, 2-in. 1.50
Moon Vines, 4 best flower, 2½-in. 4.00
Abutilons 4 choice varieties, 2½-in. 4.00
Lantanas, 4 choice varieties, 2½-in. 4.00
Double Alyssum, 2-in. 1.50
Dianthus Crenata, 2-inch, dormant. 2.50
Begonia rubra alba, 2½-in. 5.00
Colum G. Bedder, J. Goode, Versch. & L. Beck. 3.00
Chrysanthemums, fine varieties, 2-in. 3.00
Heliotrope, 4 best varieties, 2½-in. 5.00
#a-25 or 50 of any the above at the 100 rate
Address **N. S. GRIFFITH,**
Jackson Co. INDEPENDENCE, Mo.
(Independence is well located for shipping, being
8 miles east of Kansas City.)

IRISH AND SWEDISH JUNIPERS.
ALL TRANSPLANTED. Per 100 Per 1000
8 to 12 inches \$ 5 00 \$50 00
12 to 18 inches 8 00 80 00
18 to 24 inches 10 00 100 00
24 to 36 inches 12 00 120 00
36 to 48 inches 15 00 150 00
Rooted Cuttings in May 20 00

**JOSEPH HEINL, Florist and Nurseryman,
JACKSONVILLE, ILLINOIS.**

SPECIAL OFFER FOR EASTER.

ABIES NORDMANNIANA, one of the finest ornamental evergreens, perfectly hardy, hand-
some plants, about 1½ feet high, with balls ready for immediate potting. Per
100, \$60 00; per dozen, \$9 00; \$1 00 each.
CLEMATIS JACKMANII, and other large flowering varieties, in 5-inch pots. Per
dozen, \$10 00; \$1 00 each.
CYCAS REVOLUTA LEAVES, (fresh cut), can be supplied at short notice, at the follow-
ing prices: **EXTRA SIZE**, (3 ft. and upward), per pair, \$2 00; per doz. \$10 00.
ORDINARY SIZE, (2½ to 3 ft.), \$1 50; " \$7 50.
CABBAGE PALM LEAVES, in bud, 3½ to 4 feet long, as used in churches on Palm Sun-
day. Per 100, \$10 00; bundle of 25, \$3 00.
—Large, 5 to 7 feet long, for decorating purposes, per 100 \$12, bundle of 25, \$4.
FAN PALM LEAVES, 2 to 3 feet long, per 100, \$4 00; per dozen, \$1 00.
SOUTHERN LONG NEEDLE PINES, 3 to 5 feet long, very handsome, pair \$1; doz. \$5.
FLORIDA MOSS, per pound 25 cents; per barrel \$3 00.
LYCOPODIUM, dyed dark moss-green, 30 cents per pound.

For **Pampas Plumes, Cape Flowers, Grass Bouquets, Metal Wreaths**,
and Florists' Supplies generally, see ad. in **AMERICAN FLORIST** March 15th, and my
Spring List, mailed free to applicants.

Estimates on **DUTCH AND FRENCH BULBS, NURSERY STOCK**, etc., for
FALL IMPORTATION, cheerfully furnished.

TERMS, NET CASH. Necessary packing and cartage (if ordered by freight) charged at cost.

ADDRESS, J. A. DE VEER,
183 Water Street, **NEW YORK.**

WILL REMOVE TO 18 BURLING SLIP ABOUT MAY 1ST.

A NOVELTY.

One of the most valuable **HARDY PERENNIALS** of recent introduction.

THERMOPSIS CAROLINIANA.

Plants 3 to 5 feet in height, flowering in June and July, bearing strong, upright
racemes of lemon yellow flowers, very showy. Blooms second year from seed.

I OFFER FRESH SEEDS OF THE ABOVE AT \$1.00 PER PACKET.

WM. J. STEWART,
67 Bromfield Street, **Boston, Mass.**

TREES ROSES GRAPES



SOLD BY
Seedsman

HYDRANGEA OTAKSA, 3 in. pots, \$5
per 100; \$40 per 1000.
GRACE WILDER, healthy stock at \$3
per 100.

GERANIUMS: Per 100
Gen. W. S. Hancock, 2½-in. pots, \$4 00
Mme. Thibaut, 2½ inch pots, - 4 00
H. W. Longfellow, 2½-inch pots, 4 00
Gen. Grant, 2½-inch pots, - 3 00

W. A. BOCK,
NORTH CAMBRIDGE, MASS.



**TRY DREYER'S
GARDEN SEEDS**
Plants, Bulbs, and
Requisites. They are the
best at the lowest prices.
CATALOGUE LIST issued quar-
terly, mailed free to the
trade only.
HENRY A. DREYER,
Philadelphia.
Mention American Florist.

We offer for Spring planting the **largest and most
complete general stock in the United States, of
FRUIT and ORNAMENTAL TREES, SHRUBS,
EVERGREENS, ROSES, PEONIAS, HARDY
PLANTS, GRAPE VINES, SMALL FRUITS,**
etc., including many Novelties.

#a- Catalogue sent free on application.
ELLWANGER & BARRY,
Mount Hope Nurseries, Rochester, N. Y.
Established 50 years ago; still conducted by the founders.

ROOTED CUTTINGS.

COLUS—In the leading varieties including Ver-
schaffelt & Golden Bedder, \$1.25 per 100; \$1 per 1000
Per 100
Calceolarias \$ 2 00
Chrysanthemum, fine collection 2 00
Achyranthus Emersoni 2 00
Ageratum, in variety 1 50
Fuchsia, 20 leading varieties 2 00
Gazania Splendens and Variegata 1 50
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ROSES—Perle, Mermet, Brides, Paps, Gontier,
Niphetos, La France, Cook, Sunset, Safrano,
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strong plants, 2½-inch pots, . . . \$15 00 per 1000. 5 00
Ampelopsis Velchii, strong plants 8 00
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single sorts, also Ivy Leaved,
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Lemon Verbena, 1 year, strong, dormant . . . 5 00
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Vinca, Variegata & Splendens, 1 yr. strong . . . 10 00
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No reduction made for large space.

The Advertising Department of the AMERICAN FLORIST is for Florists, Seedsmen, and dealers in wares pertaining to those lines ONLY. Please to remember it.

Orders for less than one-half inch space not accepted.

☞ Advertisements for April 15 issue must REACH US by noon, April 9. Address

THE AMERICAN FLORIST CO., Chicago.

WHEN SENDING anything for our inspection, please do not fail to enclose your card in, or write your name upon, the package. Unless this is done it is frequently difficult to identify the package with your letter. A reference in your letter to "some carnation flowerseed by this mail" is not sufficient, as in all probability "some carnation flowers" will arrive from some other sender in the same mail, and without further identification it is impossible for us to say which is which. Where possible it is best to enclose the communication in the package with the specimens.

THE HORTICULTURISTS' RULE BOOK, by L. H. Bailey, contains an immense amount of useful information in a condensed form. The chapters on insecticides, injurious insects, fungicides, plant diseases, etc., seeds, miscellaneous tables, including quantity of water held by pipes of various sizes, number of gallons in circular and square built tanks and cisterns, analyses of various fertilizers and other substances, are of decided value to florists for reference, and we should consider the book invaluable to the general horticulturist. Published by the Garden Publishing Company, New York.

SPRING FLOWERS.—Prof. Watson, of the Bussey Institute near Boston, writes under date of March 14: *Galanthus Elwesii*, latifolius, imperati, nivalis and n. fl. pl., *Bulbocodium verum*, *Colchicum crocifolium*, crocuses in great variety and *Eranthis hyemalis* are all in fine bloom with the bees at work. *Chionodoxa Lucillie* and *C. Sardensis* and *Scilla amena* are showing color here in my beds. Some *Galanthus* (snowdrops) *Elwesii* have been in bloom since January 3.

NIGHT-BLOOMING CERES.—We have received a photograph of a handsome plant of this ceres belonging to Mrs. E. P. Beebe, Elizabeth, N. J. It bears fourteen open flowers and had borne thirty flowers in all. The plant is 16 years old and has bloomed three different times during the past summer, at the second blooming having thirty blossoms, opening on different nights.

THE HENRY SHAW SCHOOL.—Florist Andrew Washburn, Bloomington, Ill., writes: "My son, Geo. A. Washburn, after reading your editorial 'The Henry Shaw School,' made application for examination, was successful and has been awarded a scholarship and will enter upon the studies and training April 1, '90."

OUR NEW TRADE DIRECTORY is now ready. It gives a complete and accurate list of the florists, nurserymen, and seedsmen of the United States and Canada, designating the special branch of the trade each one is engaged in. Price \$2.

THE FREQUENCY with which such terms as naked receptacles, double pappus, campanulate or cylindrical involucres, bristly involucre scales, etc., have cropped out in a note on nomenclature which appears in this issue, causes us to drop a tear for the benefit of the committee on nomenclature.

OUR HARDY FRUITS, by Brian Wynne, F. R. H. S., editor of the *Gardening World*, a 63-page book in paper covers, has been received from the publishers, Messrs. Eyre & Spottiswoode, London, England. It treats on fruit culture in England in a very practical way.

LAMBERT'S GARTENFREUND is the title of a small book in paper covers received from the publishers, J. Lambert & Son, Trier, Germany. It contains cultural notes on garden and decorative plants in the German language.

BOOKS ON LANDSCAPE GARDENING.—In response to several queries as to the best works on landscape gardening we have obtained a list from Mr. Henry Sargent Codman, which we give in another column.

PRINT your spring trade list in the next issue of the AMERICAN FLORIST and mail copy for same as early as possible.

FULL REPORTS of the spring exhibitions held at Boston and Philadelphia will appear in next issue.

Catalogues Received.

Thomas S. Ware, Tottenham, London, England, seeds; same, chrysanthemums; same, bulbs; same, dahlias; Geo. Thompson & Sons, Louisville, Ky., trade list plants; Fred P. Burr & Co., Middletown, Conn., seeds; T. S. Hubbard Co., Fredonia, N. Y., small fruits; W. L. Smith, Aurora, Ill., trade list plants; Mrs. J. S. R. Thomson, Spartanburg, S. C., trade list plants and shrubs; Gillett & Horsford, Southwick, Mass., wild flowers, shrubs, trees and vines; C. H. Murphey, Urbana, O., trade list plants; F. W. Kelsey, New York, nursery stock; John Thorpe, Pearl River, N. Y., chrysanthemums; E. S. Nixon & Sons, Chattanooga, Tenn., plants; B. P. Critchell & Co., Cincinnati, O., plants and seeds; Lewis Roesch, Fredonia, N. Y., grape vines and small fruits.

Coming Exhibition.

April — — New Orleans.—Annual Exhibition, New Orleans Hort. Society.

April 22–25, Detroit.—Floral and musical festival.

June 24–25, Boston.—Rose and strawberry exhibition Mass. Hort. Society.

August 19–22, Boston.—Annual exhibition Mass. Hort. Society.

October 28–Nov. 1, Atlanta, Ga.—Chrysanthemum show, Piedmont Exposition Co.

November 10–14, Philadelphia.—Chrysanthemum show, Penna. Hort. Society.

November 11–13, Boston.—Chrysanthemum show, Mass. Hort. Society.

November — — Chicago.—Chrysanthemum show, Chicago Florist Club.

BUFFALO.—Wm. Scott has a house of Garfield carnations worth seeing. The plants carry at present from 50 to 75 buds each and are in a splendid condition of luxuriance and health.

EVERGREEN, ALA.—The recent heavy frost has completely ruined the new crop of wild ferns. They were growing finely when the frost came, but now they look as though they had been burned over.

News Notes.

ROCKFORD, ILL.—H. W. Buckbee has been laid up with "La Grippe" for the last two weeks.

BUFFALO, N. Y.—Owing to the short time available for preparation and some other causes of a local nature, the Florist Club's project of a spring flower show was abandoned.

HARRISBURG, PA.—Joseph Schmidt has sold his greenhouse establishment to Logan E. McClintock, the present lessee. Mr. Schmidt will retain his store at 44 North Third street.

ST. PAUL.—At the recent meeting of the Society of Minnesota Florists the Executive Committee was instructed to make every endeavor to induce the Society of American Florists to hold its 1891 convention in Minneapolis.

NEW YORK.—Arthur, youngest son of Mr. and Mrs. H. A. Siebrecht, died at their home in New Rochelle on March 19, of pneumonia. The bereaved parents have the sympathy of a very large circle of warm friends in their loss.

OTTAWA, CANADA.—The Valley of Ottawa Gardeners' and Florists' Club has, pursuant to a resolution unanimously passed at the meeting held February 13, forwarded a letter of sympathy to the surviving relatives of the late Peter Henderson.

BALTIMORE.—The Gardeners' Club of Baltimore elected officers as follows at the annual election March 8: President, Wm. McRoberts, Jr.; Vice-President, John Donn; Secretary, Henry Bauer; Financial Secretary, Chas. G. Campbell; Treasurer, Wm. B. Sands; Librarian, C. M. Wagner; Assistant Librarian, Chas. Egner.

WASHINGTON.—The *Evening Star* of March 8, contains an article giving in extensive detail the design which Mrs. Harrison has had prepared of an addition to the White House. Among other things included in this design is "the extension on the south side of a wide conservatory or winter garden with a central rotunda or palm house."

PHILADELPHIA.—Thomas Foulds, formerly gardener for Mr. Wm. M. Singler, has started in business for himself at Gwynedd on the Philadelphia and Reading R. R., where he has eighteen acres of land, upon which he is about to erect four greenhouses each 100x20, heated by steam. The new place will be known as the Gwynedd Nurseries.

AMERICA, GA.—Encouraged by the warm summer-like weather of February I had put out my tender plants and the cold snap of March 1, 2 and 3, and which was the severest we have had for years, has destroyed all. The cold has been disastrous, destroying everything, flowers and vegetables. All trees and shrubs had put forth and the new growth is dead.

BUFFALO.—At the annual election of the Buffalo Florists' Club held March 14, the following officers were chosen for the coming year: President, William Scott; Vice-President, C. H. Keitsch; Secretary, D. B. Long; Recording Secretary, E. J. Mcpeck; Treasurer, Thomas Clayton; Executive Committee, W. J. Palmer, Wm. McMillan, Wm. Milley. After the election the members sat down to the annual dinner, at which toasts were happily responded to by many of the members, and Messrs. T. Mansfield of Lockport, and G. R. Miner of Hornellsville, who were present as guests.

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@Wholesale Market.

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BOSTON, March 26.	
Roses, Teas.....	\$2 00
" Perle, Sunset.....	5 00 @ 6 00
" Gontiers, Niphetos.....	4 00 @ 5 00
" Mermel, Bride.....	6 00 @ 8 00
" La France, Wootton.....	8 00 @ 10 00
Carnations, Valley.....	1 50 @ 3 00
Dafoedii, Tulips.....	4 00 @ 5 00
Violets.....	25
Smilax.....	25 00
Callas.....	6 00 @ 8 00
Harrisii.....	8 00 @ 10 00
Spiraea.....	2 00 @ 3 00
Heath.....	3 00 @ 4 00
Adiantums.....	5 00 @ 6 00

PHILADELPHIA, March 26.	
Roses, Am. Beanty.....	\$15 00 @ 25 00
" Hybrids.....	25 00 @ 35 00
" La France.....	8 00 @ 12 00
" Mermel, Brides.....	8 00 @ 10 00
" Cousins, Wattevelles.....	6 00 @ 8 00
" Jacus.....	10 00 @ 12 00
" Gontiers.....	4 00 @ 6 00
" Bennetts.....	6 00 @ 8 00
" Perle, Niphetos.....	3 00 @ 5 00
Carnations, long.....	1 50 @ 2 00
Carnations, short.....	1 00 @ 1 50
Valley.....	3 00 @ 4 00
Violets.....	35 @ 75
Callas, narcissus.....	1 00 @ 1 50
Tulips.....	3 00 @ 5 00
Smilax (scarce).....	20 00 @ 30 00

NEW YORK, March 26.	
Roses, Bon Silene.....	\$2 00
" Perle, Niphetos, Sunsets.....	3 00 @ 4 00
" Mermel, Brides.....	6 00 @ 8 00
" Cousins, Wattevelles, Bennetts.....	8 00
" Hostes.....	10 00
" La France.....	8 00 @ 10 00
" Abnys.....	10 00 @ 12 00
" Bennetts.....	25 00 @ 30 00
Smilax.....	25 00 @ 35 00
Carnations, long.....	1 50 @ 2 00
Romans, narcissus.....	3 00 @ 4 00
Valley.....	3 00 @ 4 00
Tulips.....	3 00 @ 5 00
Harrisii.....	8 00 @ 12 00

CHICAGO, March 25.	
Roses, Perle, Niphetos.....	\$4 00 @ 6 00
" Gontiers.....	4 00 @ 7 00
" Bon Silene.....	5 00 @ 6 00
" Mermel, La France.....	6 00 @ 8 00
" Brides.....	8 00 @ 10 00
" Am. Beauties.....	12 00 @ 18 00
" Jacus.....	10 00 @ 12 00
" Bennetts, Dukes.....	6 00 @ 8 00
Carnations, short.....	1 50
Carnations, long.....	2 00 @ 3 00
Smilax.....	18 00
Violets.....	75 @ 1 00
Valley.....	4 00 @ 5 00
Tulips.....	4 00 @ 6 00
Callas, Harrisii Lilies.....	12 50 @ 15 00

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Easter Specialties.

Mermel and Wootton Roses.

Harrisii Lilies.

Candidum Lilies.

Spiraea Japonica.

Asparagus Plumosus.

Rare Orchids.

Heather.

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The Exhibition of the 188

After examining the entries for Class.....

I deem the exhibits made, worthy of the following points out of a possible points:

ENTRY NUMBER.	1	2	3						
QUALITY.									
ARRANGEMENT.									
ADAPTABILITY.									

Remarks:

(Signed,)

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100	<i>Verbenas</i>	3	-
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<i>Richard Roe</i>			
500	<i>4 inch pots</i>	5	-
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		10	-

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In reply to John Ralph, Saratoga Springs, N. Y., I would say, that my steam heating apparatus can be left safely from ten to twelve hours without attention, which I find very convenient.

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Finest sorts Delphinium and Aquilegia, Hemerocallis fulva, Hibiscus, Lily of the Valley clumps, Platycodon, White Perennial Psa, Sabatia, Viola cucullata.....	4 00

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AZALEAS

BEAUTIFUL SHAPED PLANTS. ALL SIZES.

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HYACINTHS, TULIPS, NARCISSUS, LILIES, ETC.

We should like now to get into Correspondence with Florists and Importers of Bulbs, about orders for Holland Bulbs.

References as to Quality of our Bulbs, etc., to several United States Florists and Seedsmen.

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WHOLESALE BULB GROWERS,

LISSE, near Haarlem, HOLLAND.

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Summer and Fall Delivery
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ROMAN HYACINTHS

Narcissus, Lilium Candidum,
Bermuda Harrisii, Spiræa,
Lily of the Valley, Freesia,
Dutch Hyacinths and
Tulips, Etc.

SPECIAL PRICE LIST

Mailed on application. Order now
and save money.

AUGUST RÖLKER & SONS,

Importers and Dealers,

NO. 136 W. 24TH ST., NEW YORK.

Lilium Harrisii Bulbs

THE BERMUDA EASTER LILY.

Having made arrangements to handle the entire product of several of the largest growers of the Harrisii Lily in Bermuda, we are prepared to offer the trade at extremely low prices, the finest stock of these bulbs ever brought to the States.

Careful personal inspection of the growing crops assures us that the bulbs offered are entirely free from blight and mixture, and that they are 1st class in every respect. If in the market for these bulbs, write us stating quantity and sizes wanted, and we will quote prices by return mail. Bear in mind that on orders sent us AT ONCE the bulbs can be shipped in time to force for the CHRISTMAS HOLIDAYS if desired.

JOSEPH BREGG & SONS,

51, 52 & 53 N. Market St., BOSTON, MASS.

We are now booking orders for Fall Importation of French and other bulbs.

	Per 100
500 Dracæna, 3½-in. pots	\$8.00
2000 Verschaffeltii, 2½-in. pots	2 25
Rooted Cuttings of Chrysanthemums	2.00
Rooted Cuttings of Coleus	1.25

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NO "SYNDICATE" BULBS!

LOUIS BREMOND FILS,

Grower of ROMAN HYACINTHS and OTHER FRENCH BULBS,

OLLIIOULES, VAR, FRANCE.

JANUARY, 1890.

TO THE TRADE:

I am informed that Mr. C. Mertz, who was a clerk in my employ until August, 1889, and who resides in Paris now, is making offers of Roman Hyacinths and other bulbs, on behalf of a "Syndicate." I hereby announce to my customers that I have nothing in common with this so-called "Syndicate," and that I disclaim all connection with that or any other organization.

My bulb crops for next season are in a flourishing condition. I can furnish you with any quantity you may require, at very favorable prices, which may be obtained by addressing

Mr. J. A. De Veer,

183 WATER ST., NEW YORK,

MY SOLE REPRESENTATIVE FOR UNITED STATES AND CANADA.

Yours Respectfully,

LOUIS BREMOND FILS.

TUBEROSE BULBS.

100,000 Tuberose Bulbs.

100 BALS DEER TONGUE or VANILLA.

Now Ready for Delivery.

Samples sent on application. Correspondence

solicited. Address

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P. O. Box 428. WILMINGTON, N. C.

WANTED.

A large bulb house on the Continent desires from

60,000 PEARL TUBEROSES,

20,000 GLADIOLUS,

20,000 LILIUM HARRISII.

First quality bulbs only; state circumference, etc., with prices f. o. b. at New York or Baltimore, in lots not less than 5,000. Fall delivery. Address

ALBERT M. BEEK,
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CAPE COD PINK POND LILY

For price list, Plants and Cut Flowers,
address the original cultivators,

Chipman Bros.,

SANDWICH, (Cape Cod) MASS.

TO THE TRADE.

HENRY METTE,
Seed Grower and Merchant,
QUEDLINBURG, GERMANY.

(ESTABLISHED 1857.)

Will be pleased to quote special prices for garden, agricultural and flower seeds saved at his extensive grounds, which cover more than 4,000 acres.
Wholesale Catalogue free on application.

Hartford, Conn.

Following is the list of premiums awarded at the spring exhibition of the Hartford County Hort. Society held March 20:

Azaleas—Three plants, 1st \$10, James Smith; 2d \$6, John Coombs; 3d \$4, B. E. Beemer.

Begonias—Best collection, 1st \$5, B. E. Beemer; 2d \$3, John Coombs.

Carnations—Twelve plants, not less than six varieties (Goodwin prize), 1st \$8, George W. Atwood; 2d \$5, James Smith; 3d \$3, John O'Neil.

Carnations—Six plants, not less than three varieties, 1st \$3, Geo. W. Atwood. Seedling Carnations—1st \$3, James Smith.

Cyclamens—Four plants, 1st \$3, James Smith.

Cinerarias—Three plants, 1st \$3, James Smith; 2d \$2, B. E. Beemer; 3d \$1, C. H. Pember.

Orchids—Two or more varieties (society's diploma to go with first prize), 1st \$5, B. E. Beemer; 2d \$3, James Smith; 3d \$2, William May.

Pansies—Twelve plants in pots, 1st \$3, Stephen Delbar; 2d \$2, John Coombs; 3d \$1, William May.

Roses—Ten cut blooms, not less than five varieties, 1st \$5, G. W. McClunie; 2d \$3, A. N. Pierson, of Cromwell; 3d \$2, John O'Neil.

Roses—Six cut blooms, not less than three varieties, 1st \$3, James Smith; 2d \$2, A. N. Pierson.

Violets—Six plants in pots, not less than two varieties, 1st \$3, James Smith; 2d \$2, John O'Neil; 3d \$1, William May.

Largest and best collection of spring flowering plants, 1st \$7, C. H. Pember; 2d \$5, Wm. May; 3d \$3, John Coombs.

Largest and best collection of cut flowers, 1st, B. E. Beemer, 2d, A. N. Pierson. Special mention with recommendation of diploma: G. W. McClunie for floral designs, George W. Atwood for coleus, William May for gloxinia, and Eliphabet Robbins, of Wethersfield, for mushrooms.

PANSIES.

GOOD STRAINS.

Blooming plants, large..... \$ 4 00
Medium size plants..... 2 50
Wintered over seedlings, large for seedling..... 1 50

ROSES.

Perles, 2½-inch pots..... 4 00
Mermets, 2½-inch pots..... 4 00
Bon Silene, 2½-inch pots..... 4 00
Niphetos, 2½-inch pots..... 4 00
Brides, 2½-inch pots..... 4 00
Fine healthy stock.

VERBENAS.

Good varieties from 2½-in. pots..... 3 00
Rooted cuttings..... 1 00

CHRYSANTHEMUMS.

Good leading varieties for show or cut flowers.
Our selection from 2½-inch pots..... 3 00
Rooted cuttings..... 2 00
Cuttings..... 1 50

G. R. CLARK & CO.,
SCRANTON, PA.

DAHLIAS, choice named, 50 var., show cactus and pompou, strong roots, per doz. \$1.00; per 100, \$4.50; per 1000, \$10.00.

CYCLAMEN, fine plants in bud, per doz. \$1.00; per 100, \$7.00.

GRAPE VINES, 10 kinds, choice, 2 year, including Niagara, Moore's Early, Brighton, Etc., per dozen, \$2.00.

CLEMATIS, choice, 2 year, strong, best kinds, per dozen, \$3.00.

MOSS ROSES, strong plants, per doz. \$1.50; per 100, \$5.00.

ARISTOLOCHIA (Dutchman's pipe), per dozen, \$1.50; per 100, \$10.00.

AMPELOPSIS VEITCHII, strong, 2 year, per doz. \$1.00; per 100, \$5.00.

All kinds greenhouse, bedding, small fruit, hardy shrubs, and vegetable plants.

Correspondence solicited.

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PRIZE ASTER SEED. NEW CROP.

Our strain of Trufruit's Prize Aster has proven to be the most desirable and profitable sort for Florists' use, either for pot culture or cut flowers. The colors are rich and brilliant. We haveattering reports from those who grew them in past seasons.

	Trade pkt. per doz.
White.....	\$ 50 83 00
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Blue.....	50 3 00
Purple Violet.....	50 3 00
Scarlet.....	50 3 00
Crimson Ball.....	50 4 00
Mixed of all colors.....	50 5 50

PERFECTION BALSAM SEED

Extra Double Whits, trade pkt. 50c; oz. \$2.

For a complete list of Flower seeds, please see Dreeer's Wholesale List to Florists—mailed to them only.

HENRY A. DREER,
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NEW ABUTILON ERECTA

Differs from all Others

FLOWERS STAND UP ERECT!
Color, a Beautiful Orange Pink.

Send for Trade List containing full description.
Orders, booked and filled in rotation after March 1st. Price, 25c, each; \$3 per doz.

PRIMULA OBONICA—
We must have room, and offer 2½-in. pot plants, at 50c. per doz.; \$3 per 100. 3 and 3½-inch, pot plants, \$1 per doz.; \$8 per 100.

SEED—(crop 1899), per pkt., 1000 seeds, 75 cts.

PRIMULA FLOREBUNDA—

2-inch pot plants, 60c. per doz.; \$4 per 100.

SEED—(crop 1899)—

Per pkt., 100 seeds, 25c.; 1000 seeds, \$3.00.

I. N. KRAMER & SON,
MARION IOWA.

When writing, Mention American Florist.



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VIOLETS. Swanley dbl. white, Marie Louise, Neapolitan. \$10 PER 1000.

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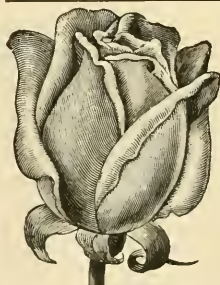
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Primulas, Elegant plants in bloom; whites, pinks, reds. \$40 per 1000.

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FOREST CITY GREENHOUSES
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NEW ROSES, Climbing Perle des Jardins, Climbing Niphetos, Madam Hoste, Soude Wootton, Duchess of Albany, Vick's Caprice.

NEW CARNATIONS, Mrs. Fisher, Christmas, The Bride.

NEW CHRYSANTEMUMS, Ada Spaulding, Mrs. Harrison, H. E.

Widener. 25 other new varieties.

NEW COLEUS, Buttercup, best bedding yellow.

GLADIOLUS Snow White.

LARGE CATALOGUE FREE.

SEEDS, PLANTS, BULBS, of best strains only.

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COLEUS Verschaffeltii, Golden Beauty, Firebrand, J. Good, etc. per 100, 50c. per 1000, \$7.50.

Heliotrope, " 50c. " 4 00

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The best SCARLET CARNATION for the New York market, and has brought the best prices of any Scarlet Carnation. Free bloomer. Very fine young plants.

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10,000 healthy, well Rooted Cuttings.

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Roses, fine healthy stock, no disease, Perles producing hardly 1% of malformed buds.

1000 Perle des Jardins, 2½-inch.	Per 100
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FINE STOCK OF FERNS AS FOLLOWS:

Adiantum Cuneatum Roenbecki, the most useful fern for florists use grown, 3-inch, \$1 per doz.	\$8.00
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Marantas in variety, 4, 5 and 6 inch, 20c., 30c., 50c. each.	
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New white fringed Hydrangea, 2½-in. 6.00	
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ALL OF ABOVE ARE FINE STOCK AND WELL GROWN.

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Rooted Cuttings

CARNATIONS. Can furnish in limited quantities Hinze's and Edwardsii, at \$1.00 per 100; \$7.00 per 1000. Portia, Wilder and Hill, at \$1.25 per 100, \$10.00 per 1000. Pride of Ken

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COLEUS. In mixture that includes Hill, Phenomenal and Storm King, all labeled, at \$1.00 per 100. The three named alone, \$2.00 per 100.

FUCHSIA. From cold frames, in bud and bloom. This strain has given universal satisfaction and can be relied upon as No. 1 sellers. Price, \$15 per 1000; 250 at 1000 rates; \$1.75 per 100.

PANSIES. In order to close out stock am making a special drive on these. They are good roots and ought to go at the price, \$7.50 per 1000; \$1.25 per doz.

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Have just gathered a fine lot of new seed mainly grown on Rosemary, fertilized with BUTTERCUP, GRACE WILDER, ANNA WEBB, CHRISTMAS, and L. L. LAMBORN, that should produce some grand new varieties. 25 cents per pkt., with directions for growing.

NEW CARNATION PINK "J. R. FREEMAN."

Will spare a few PLANTS of this lovely cardinal colored, unusually fragrant, early winter blooming variety, at 25 cents each; \$3.00 per dozen, by mail or express.

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WM. SWAYNE, L. L. LAMBORN, Pure White;

PRIDE OF KENNETT, Dark Crimson

Send for price list of Rooted Cuttings of these and other leading market sorts.

My Specialty is Carnation Growing.

Stock is true to name and free from disease.

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CARNATIONS.

Rooted Cuttings NOW READY, or pips if desired.

— LARGE STOCK OF —

WM. SWAYNE and L. L. LAMBORN.

Also Runners or Rooted Cuttings of

VIOLETS,

Marie Lonise, Neapolitan, Swanley White.

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CARNATIONS AND VIOLETS.

Rooted Cuttings of Carnations and well Rooted

Runners of Violets in any quantity, ready now.

Price on application.

JOS. RENARD,

UNIONVILLE, Chester Co., PA.

Telephone No. 5 Unionville. All telegrams should be sent to WEST CHESTER, PA.

Strong Rooted Carnation Cuttings,

Taken from healthy, blooming plants.

Orders will NOW be taken. 20 of the leading varieties.

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giving a complete and accurate list of the Florists, Nurserymen and Seedsmen of the United States and Canada is

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NEW CARNATIONS.

On receipt of ONE DOLLAR, I will mail 8 plants of J. B. JACQUIER, perpetual yellow.

Or 8 plants of C. SCHMITT, style of Silver Spray, and healthier.

Or 8 plants of New MARGUERITE, raised from Cuttings.

Or 25 plants of my best EXHIBITION PANSIES.

DENYS ZIRNGIEBEL,
NEEDHAM, MASS.

ROOTED CUTTINGS OF CARNATIONS,
GROWN BY THE QUANTITY.

My new seedling, Lady Rachel, deep maroon with variegated shadings, has no competition among existing carnations; very fragrant, of good habit, early bloomer, nearly all on long stems, \$3 per doz. \$20 per 100. Morning Ray, seedling, very fine, of good merit and early, \$4 per doz., \$20 per 100. Mrs. B. Harrison and Amy, seedlings \$2.75 per doz., \$18 per 100. Wm. Swayne, \$2.50 per 100. L. L. Lamborn, \$2 per 100. Petunia White Lapurite, Edwardsii, \$1.25 per 100. Hinze's White, Seaward, Peter Henderson, Parker City, Miss Jolliffe, Luke of Orange, Lady Emma, Philadelphia Red, Scarlet King, Portia, Seaway, Chester Pride, Hinsdale, \$1.50 per 100. Silver Spray, Grace Wilder, \$2.50 per 100. Grace Fardon, Springfield, Sunrise, \$2 per 100. Buttercup, \$3 per 100. Florets of the above varieties \$1.25 per 100. Cash must accompany all orders. Remittances may be made by Money Orders on Kennett Square, or Registered Letter on Toughkenamon Postoffice. Also can furnish the second edition on Carnation Culture, by L. L. Lamborn, on receipt of \$1.50 on application.

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Toughkenamon P. O., Chester Co., Pa.

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YOUNG PLANTS AND FOOTED CUTTINGS.

Send for descriptive price list of sixty varieties, including new varieties of this year.

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THE "BERTHA SOPER."

A beautiful salmon pink, long stem, early and late, ever bloomer, extra prolific, vigorous grower; fills a long felt want. Plants ready for delivery April 1st. Price \$1.00 per dozen, \$15.00 per 100. Sample plant 50c. postpaid.

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The greatest and best collection ever offered, including the latest novelties. All seed is warranted to be fresh, pure and strictly first-class.

New circular and price list to the trade on application.

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5,000 well rooted cuttings Hinze's White, the most prolific bloomer and best keeper grown, \$12 per 1000.

DeWITT BROS., Bristol, Pa.

Chicago.

At the last meeting of the Florists' Club the subject for debate was as to whether a removal of the present duty on bulbs would be a benefit or detriment to the trade. When submitted to vote, after an exhaustive discussion, it was decided by a close vote in favor of the abolition of the present duty.

That Easter is almost at hand was evidenced by a visit from Mr. Wm. J. Stewart, of Boston, last week.

Jim the Penman and a copy of the Dictionary of Gardening alighted here last week while on a flight to the Pacific coast.

Mrs. J. C. Vaughan and Miss Florence Vaughan left recently on a trip to California.

At the next meeting of the Florist's Club the cut flower commission man will be cussed and discussed. Reserved seats, at a safe distance from the seat of war, have already been spoken for.

Violets Losing Fragrance.

I have some complaint that my violets lose their fragrance by the time they reach the retailer. They are fragrant enough when bunched and packed and are delivered within 12 hours after being packed. They do not get their heads wet and are packed carefully in boxes lined with wax paper. Can any violet grower tell me how to handle this flower so as to preserve the fragrance better?

SUNNY SIDE.

BULBS. BULBS. BULBS.



SEEDS. SEEDS. SEEDS.

OUR NEW WHOLESALE LIST for '90-'91 is now ready.

Remember

EARLY ORDERS

Get best attention, quickest delivery and special inducements for parties ordering prior to May 1st.

CHINESE NARCISUS, DELIVERY IN SEPT. Specially favorable Estimates.

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CUT BLOOMS AT ALL SEASONS.

Mention American Florist.

LOTUS,

NELUMBium SPECIOSUM,

AND

WATER LILIES,

ALL COLORS.

AQUATICS FOR THE AQUARIUM, Etc.

Send for Catalogue.

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WHITE WATER LILIES

(Nymphaea Odorata.)

\$5.00 per 100. 50 at 100 Rates.
75 cents per dozen.

Cash with order. No catalogue. No other varieties.

WM. F. HALSEY, Water Mill, Long Island, N. Y.



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I have a Large Stock of DECORATIVE PLANTS, as

PALMS, DRACÆNAS, FERNS, PANDANUS, ETC.,

for immediate use, and a still larger stock growing on for Spring sales, as well as of all the choicest BEDDING and CUT FLOWER PLANTS, especially ROSES. Everything in excellent condition.

Inspection of my stock at the Nation's beautiful Capital cordially invited.

WRITE FOR PRICE LIST.

ANACOSTIA P O., WASHINGTON, D. C.

ORCHIDS
Cheap as Good Roses.

Send \$ two cent stamps for Catalogue and Plate.

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Healthy Plants at Bottom Prices.

Per 100	
Smilax, in 3-inch pots, \$3.00; 2-inch pots.....	\$2.00
Ageratum, White Cap. Blue Cape, 2½-in. pots.....	2.25
Mine Sallert Geraniums, 2½-in. pots.....	2.50
Feverfew, White Gem and Golden, 2½-in. pots.....	2.25
Cynphaea, or Cigar Plant, 2½-in. pots.....	2.00
Coleus, 15 standard sorts.....	2.25
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FOR SALE.

5000 Aristocochia alba, or Dutchman's Pipe, Per 100	
1 year old.....	\$ 6.00
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Anemone Japonica Alba.....	8.00
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Strong dormant pot-grown plants.

WM. H. KING,
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A book which tells how to make them and shows how they look. Fifty tinted plates of approved designs, in fine shape for showing to customers in place of the bare wire designs; it "gets there" much better, and looks pretty while doing it. It is a good investment for any working florist at \$3.50, postpaid, and can be had of

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" " 9 to 11 inches.....	2.00

Can furnish car loads at considerable of an abatement from these prices in some of the items.

W. P. BRINTON, CHRISTIANA, PA.

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UNITED STATES NURSERIES,

Short Hills, N. J.

Chrysanthemums, the very best.

Single Dahlias, finest only.

Hardy Perennials, 7 acres in hundreds of the best kinds.

Orchids, the largest stock in America.

Cypripediums, largest and finest stock in the world.

Foliage Plants, fair assortment.

Best Quality at Low Prices.

Pitcher & Manda.

P. S.—We give 100 cents in Plants for every Dollar.

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LATANIA,
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Dracena Terminalis.
 CYCLAMEN, Williams' and other good strains. For further information
 Apply to **EDWIN LONSDALE,**
 WYNDMOOR, CHESNUT HILL.
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Probst Bros. Floral Co.,
 1017 Broadway,
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Abutilon Golden Pleece, 4-in. . . per dozen, \$2 00
 Primula Ohconica, 3½ inch. . . per 100, \$6 00
 " 4-inch. 10 00
 Impatiens Sultana, fine plants, 2-in. " 3 00
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" " " mixed,	3.50	15
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" " " mixed,	1 00	10
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ON THE NIGHT of March 6 the large greenhouses and part of the stock of J. C. Gibson, Woodbury, N. J., were destroyed by fire. Mr. Gibson advertised a large stock of plants in our issue of March 1st, but is now unable to fill orders for his new coleus, fuchsias, heliotrope, lantanas and verbenas on account of his loss, and money forwarded by patrons for these plants will be returned when matters have assumed proper shape. He still has a large stock of new chrysanthemums, Begonia Saundersonii, hollyhocks, ageratum and tuberoses, grape and blackberry plants, from which he would be pleased to fill orders.



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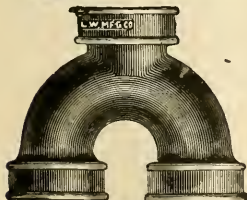
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His wife had presented him with a very handsome watch and chain, and the next day he returned from a trip to the city minus the same. When his attention was called to the absence of the time-piece he concluded that it had been either lost or stolen from him. But on retiring for the night it was discovered that in making his toilet for his trip to the city he had put on his white shirt without removing either the old shirt or vest, and the watch was brought to light, calmly reposing in its usual place, when he disrobed.

He drove down town one day, left his rig standing in front of a store, forgot he had driven in, took a train, went home, and next day wondered why the horse was not in the stable.

He went to the city one day, stating on leaving that he would be home for supper. Nothing heard from him for two days, when a telegram was received from a city nearly a thousand miles distant announcing his presence there. He had, it appears, made an engagement to be there at that date, but had forgotten all about the fact until late in the day, and when it occurred to him he took a train at once without thinking of notifying his family until he had reached his destination. Then he bethought himself of the anxiety his absence would create and sent a telegram.

One morning he decided to go to the city and repairing to the house donned a white shirt, forgetting to remove the other one. Just as he was about to start, some matters in the greenhouses claimed his attention, and not wishing to soil his white shirt, he sought his room, found a work shirt, put it on over the white one, got the dirty work out of the way, returned to the house, donned another white shirt over those he already wore and went his way. He remarked to several during the day that it seemed to be rather warm, but the cause was not discovered until he disrobed at night.

On another occasion he had an acquaintance on whom he had called, hunting all over the place for an umbrella, which he announced that he had lost, and it was not until asked whether he had brought two umbrellas, that he realized he had been holding the useful article over his head all the time.

The authenticity of all these stories is not vouched for, but the probability is that they are but little overdrawn.

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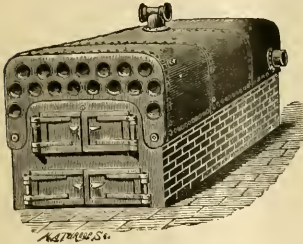
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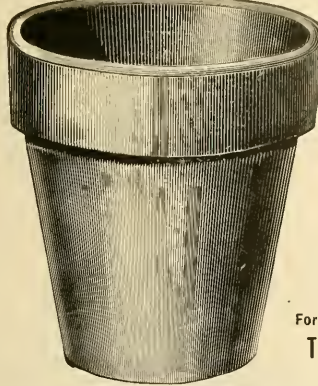
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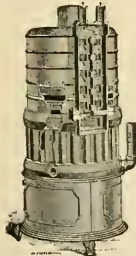
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Index to Advertisers.

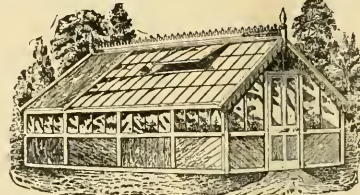
Advertising Rates, etc.	408
Albion Printing Wks.	421
Albia C. F.	414
Allen S. L. & Co.	420
Allen, W. S.	409
Anchor P. A. & Co.	421
Association Flora.	412
Baker Bros.	410
Baller P. A.	414
Bayersdorfer H. & Co.	421
Bear Samuel Sr.	413
Benz Albert.	413
Berger, H. H. & Co.	416
Blanc A.	421
Block Theo.	410
Block Wm A.	407
Brackebridge & Co.	410
Brauer & Richter.	417
Breck Jos & Sons.	413
Bridgeman Alfred.	410
Rrinton W. P.	416
Brown R. S. & Son.	419
Brow & Cantell.	408
Buckbee H. W.	414
Burgess F. J.	415
Carmody J. D.	424
Casper L. A.	419
Chandler Alfred.	421
Chattfield A. F.	407
Chipman Bros.	413
Clark G. H. & Co.	414
Connelly John J.	413
DeFev Tunis.	415
DeVeer J. A.	407
Devine, Palmer.	415
DeWitt Bros.	415
Dier, John L. & Co.	421
Dillon, J. L.	409
Dingee & Conrad Co.	406
Draer, H. A.	407
Eisele W. G.	410
Eisele W. J.	410
Elliott B. A. & Co.	417
Elliott Wm & Sons.	418
Ellwanger & Barry.	416
Faber Bros.	416
Ferguson John B.	410
Fisher Bros & Co.	412
Fisk Chas H.	414
Floral Supply Co.	420
Frose O. W.	409
Fryer E.	417
Gardner Jao & Co.	419
Germond & Congrove.	408
Glanher Emil.	410
Greene W. W. Son & Sayles.	413
Grey Benj.	416
Griffith, Jas.	421
Griffith, N. S.	407
Hill Association.	422
Hales, H. W.	410
Hallock, V. H. & Son.	412
Halsey Wm F.	416
Hammond, Benj.	407
Hammond & Hunter.	405
Hancock George.	415
Harvey J. H.	415
Heisl Joseph.	407
Henderson John Co.	406
Henderson Mfg. Co.	424
Herr, Albert W.	415
Hews A. H. & Co.	422
Hilfinger Bros.	421
Hilppard E.	421
Hitchings & Co.	424
Hooker, H. M.	424
Horan, Edw. C.	409
Hubbard T. S. & Co.	420
Hudson John M.	409
Hunt E. H.	409
Hughes E. G.	421
Ives, J. H.	422
Jackman Geo & Co.	407
Jewett Z. K.	423
Johnson Jacob.	410
Johnson & Stokes.	422
Joosten C. H.	421
Kelsey F. W.	412
Kennett Bros.	409
Kling Jas.	412
Kling Wm H.	410

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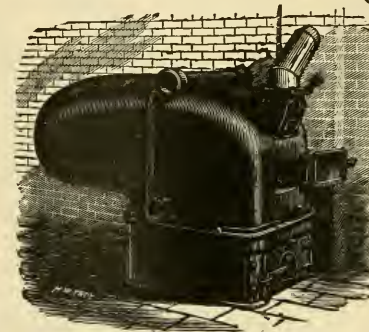
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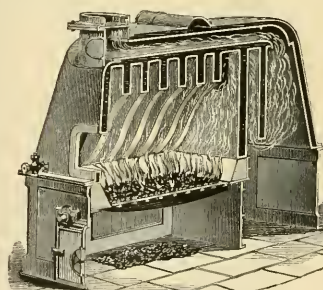
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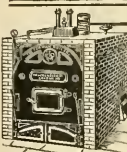


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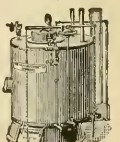
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Vol. V.

CHICAGO AND NEW YORK, APRIL 15, 1890.

With Supplement. No. 113.

THE AMERICAN FLORIST

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SOCIETY OF AMERICAN FLORISTS.

J. M. JORDAN, St. Louis Mo., president; M. H. NORTON, Boston, Mass., vice president; Wm. STEWART, 67 Bromfield St., Boston, Mass., secretary; M. A. HUNT, Terre Haute, Ind., treasurer. The sixth annual meeting at Boston, Mass., August, 19, 20, 21, 22, 1890.

CONTENTS.

Easter trade	425
A small show house (illustration)	427
Philadelphia—spring exhibition	428
Boston—spring exhibition	428
German floral arrangements (illustrations)	429
New Orleans—spring exhibition	430
Roses—the yellows	430
"—Mme. Hoste (with illustration)	430
"—most suitable varieties	430
Hardy plants—April flowers	431
Nomenclature	432
Hybrid rocheas (with illustration)	433
Clematis paniculata	433
Is Primula obconica poisonous	434
Carnations—an interesting letter	434
"—American seedlings	434
"—cost of production	435
Chrysanthemums for Easter	435
New York notes and comments	435
Bulbs at second class freight rates	435
News notes	436
Historical	436
A tariff on plants	438
The seed trade	440
A "model" seed catalogue	440
Temperature of water for plants	440
Japan lilies	440
Preserving fragrance of violets	442
Cedar stakes	444
Slugs among violets	444
Freesia refracta	444
Indianapolis	446
Quite different	448
2 inch pipe	448
Some decided novelties	450

IMPORT DUTY ON PLANTS.—As will be noted in another column, a bill is now before Congress which provides for an import duty on plants. Believing that many of our readers may wish to protest against any increase of duty on some or not all of this stock, we have supplied a convenient sheet for protest in supplement enclosed with this issue, which may be used or ignored as they may deem best.

OUR NEW TRADE DIRECTORY is now ready. It gives a complete and accurate list of the florists, nurserymen, and seedsmen of the United States and Canada, designating the special branch of the trade each one is engaged in. Price \$2.

You may know it all, but if you make no use of your knowledge it is valueless to you.



New York.

After a Lenten period, which has not been nearly so dull as usual, a good Easter was naturally expected, and with few exceptions the New York men express themselves as greatly satisfied. Some of them find their trade greatly increased over that of last year, and in no case was it less. A very large quantity of stuff was sent in, and a majority of the wholesalers found themselves pretty well sold out on Saturday night. One large wholesaler says his sales were fully 30 per cent greater than last year, and as no one complained that his trade was less than previous Easters it is reasonable to infer that it would average an increase over former years.

On the whole, flowers were very fine; indeed every festival of this kind proves that the New York market emphatically demands good flowers, and has no place for poor ones. The constantly growing taste for boxes of loose flowers, rather than baskets or designs, has a good deal to do with this, because when flowers are not made up they stand entirely on their own merits and do not depend on any accessories. The fashionable florists say that the call for any sort of designs is now very small. Formerly they had a good many memorial designs for Easter church work, but this year they were very few; a great many plants were sold in their place, or else cut flowers.

Lilies were naturally the leading Easter flower. The quantity sold in and about New York was certainly tremendous; larger than last year. In addition to cut flowers they formed a favorite pot plant. Few, if any, were left over; the supply was short by Saturday afternoon. The standard price for lilies was \$15 a 100. Some few were sold higher in small lots, but that was the prevailing price. Earlier in the week some were sold for \$10 and \$12; some of the growers had an idea that they might be over-plentiful, but such was not the case; perhaps the market might not have taken many more, but all in were sold readily.

The dealers were singularly unanimous in prices; the scale was about the same all over the city, as far as wholesale men were concerned. There was little difference from the prices of last year. Roses were very good; some few growers held back their stuff, rushing in nearly all the week's cutting on Friday and Saturday,

to the detriment of quality, and consequently of prices, but there was hardly so much of this as usual.

There were superb Jacqueminots in, they sold well, as this rose always does when really good; they varied from \$10 to \$25 a 100. Weigand, who has always enjoyed a reputation for this rose, sent in remarkably fine flowers, while Siebrecht & Wadley sold grand Jacqs of their own growing.

La France varied greatly in quality, and consequently in price, going all the way from \$6 to \$25 a 100. Perle, \$6 to \$8 a 100; Bride and Mermet, \$8, \$10 and \$12 a 100; some sold for more, but not many. Souvenir, Cusin and Watteville the same. Bon Silene, Papa Gontier, \$6 to \$8; Hybrids averaged \$40 a 100; some few very fine ones brought more, but a good many brought less. Neyrons, Rothschilds and Brunners were very fine. Julius Rochrs sent in grand hybrids; so did the Messrs. Asmus, Schultheis and others. Singularly enough, Prince Camille de Rohan which, under the trade name of "Black Jacq," sold well a few seasons ago, does not seem to take at all this year; some very good flowers were in at Easter, but no one seemed to want them.

Carnations were not so plentiful as usual, they sold for \$4 to \$5 a 100. They have not generally done well the past winter, which may account for their comparative scarcity now.

Tulips, which seemed almost a drug a week before Easter, were not over plentiful at that date, they brought \$3 to \$4 a 100; Lily of the valley \$4 a 100; violets 50c to \$1 a 100. A very large quantity of violets was sold. Smilax and asparagus 25 and 35 cents a string.

Church decorations, while presenting no specially new features, were certainly more elaborate than in former years, and there was a largely increased use of flowers on the part of churches which formerly made little display in this way. Similarly, there was an increased trade from people who are not ordinarily flower buyers. The sale of flowering plants was very large, many of the churches buying a majority of those used in decorating, and distributing them to the hospitals afterwards. Lilies led among pot plants, as well as cut flowers; next came azaleas, hydrangeas and lilac, while genista was largely used.

There is no doubt that the sale of plants large though it was, would have been still larger if Friday had been fine, but it was so wet and blustery that the florists could not make any display outside, and a good many buyers did not venture out. Besides, people are always inclined to buy plants and flowers more liberally in fine weather than the reverse. Saturday was another bad day, it was fine, but the wind was so high and boisterous that plants and flowers were transferred with difficulty; it could hardly have been worse

as far as lilies were concerned. But in spite of all these disadvantages trade was certainly excellent.

It will be noticed that no fancy prices were realized, they were really moderate, but as one dealer said, people are more ready to buy at Easter, because they can show something for their money. It seems recognized as essentially a feast of flowers, even among those who do not pay any attention to it in other ways. Averaged all round, the volume of trade must have been decidedly larger than last year.

All the florists' stores were finely arranged, many of them making a regular exhibition. Hodgson, Burns, McConnell, Thorley, Siebrecht & Wadley, in fact, all of the large retailers made very fine displays.

Easter Monday was certainly a very slow day, but a good many festivities came off that week, which benefitted the florists. Even the least enthusiastic said Easter trade was better than last year, while many spoke of it as remarkably increased.

EMILY LOUISE TAPLIN.

Boston.

Easter trade for 1890 seems to have given general satisfaction in this vicinity. The weather for several days preceding the day was fine and encouraged flowers to bloom and flower buyers to come out and buy. The number of plants disposed of must have been enormous, all reports indicating that this particular branch of Easter work has seen a large increase this year.

Cut lilies sold well, the preference seeming to run to *Harrisii* as compared with *candidum*, but the market was fully stocked with both these varieties and all demands were easily filled at moderate prices. The call for roses was largely increased over former years and some varieties were in very short supply. Tea roses were almost extinct and could they have been obtained would have brought almost Christmas prices. The same was true of carnations, there not being one tenth of the quantity required obtainable. Other scarce articles were *smilax* and tulips. Violets were fairly abundant and the sale of them was immense.

The various churches decorated about as usual, nothing of an extraordinary nature having been noticed. W. J. S.

CHICAGO.—Easter trade averaged about 15 or 20 per cent larger than last year. There was a notable increase in the call for *Harrisii* lilies and a correspondingly smaller demand for callas. There were but very few good *candidums* to be had, the majority being very poor in quality. Other stock averaged about the same as last Easter in quality, prices also averaged about the same as last season. There was a full supply of all flowers except carnations and colored roses. Quite an increase in the call for blooming plants was noted by those who handle them. Upon the whole the Easter trade of 1890 was very satisfactory. It was noticeable that the churches used more loose flowers and less designs than heretofore.

MINNEAPOLIS, MINN.—From 10 to 25 per cent larger than last Easter with an increased call for lilies and other white flowers. Supply was nearly equal to demand, prices somewhat lower than last Easter. Some of the florists do not increase prices any at Easter, selling at same rates as usual. Quality of flowers was fully up to the standard, in some cases being much better than last year.

Increased call for blooming plants. Plants are now very largely used in church decoration to the exclusion of cut flowers and designs.

LOUISVILLE, KY.—Easter trade shows a decided increase each year in this city, the present Easter trade exceeding that of last year by about 25 per cent. In spite of the great demand the supply was nearly equal to it and the quality was better than in previous years. And people are beginning to pay better prices for first class stuff. There was an increase in the call for *Harrisii* lilies. A particularly noticeable feature was the falling off in the call for baskets and designs; everyone wanted loose cut flowers. Church decorations did not amount to much.

PHILADELPHIA.—About 20 per cent larger than last Easter, the increase being almost entirely in sales of blooming plants. Prices ruled about the same as last Easter except on lilies, which were lower in price owing to the large quantities placed on the market. The supply of all flowers was about equal to the demand at prices asked, the quality being possibly a trifle better than last year. Next to lilies, fine hydrangeas were in best demand, though all flowering plants sold unusually well.

INDIANAPOLIS.—Much larger than last Easter owing to fine weather. The main increased call was for lilies, violets, roses, carnations and daffodils. Prices were about the same as last year, but there were less complaints from customers, as quality was much better. Supply was nearly equal to demand. Good blooming plants sold well at an increase of about 25 per cent over last year. Loose flowers constituted the bulk of the sales, few baskets and designs being called for.

CINCINNATI, O.—About 25 per cent larger than last year. An increased call for *Harrisii* lilies and less demand for callas. Main call was for roses, lilies, violets and carnations. Prices ruled about the same as last year and home-grown flowers were better in quality. There was an increased call for blooming plants, especially for lilies, roses and hyacinths. While the orders averaged smaller in amount there was a greater number of them.

EVANSVILLE, IND.—About 20 per cent larger than last Easter and prices obtained about 10 per cent better. Supply was equal to demand except lily of the valley, quality of flowers much better than last Easter. Larger demand for *Harrisii* and *candidums* in pots and cut callas and lily of the valley. In spite of the three weeks of miserable weather which preceded Easter the supply was very good.

BUFFALO, N. Y.—About one fourth larger than last Easter. Prices were quite as good as former years. Could have sold more roses, violets and carnations. Home grown flowers were of excellent quality. A great increase in the demand for fine flowering plants of every kind. Church decorations were fully up to former years and 50 per cent more plants were sold on the streets.

DES MOINES, IA.—About 25 per cent larger than last year. Increased call for callas, *Harrisii*, *candidums*, tulips and roses. Prices obtained were better than last year, supply not equal to demand. Quality of flowers better than last year. But little call for plants; people here loan their house plants to the churches. Boxes of loose flowers were in greatest demand, but little call for baskets.

PITTSBURG.—About 25 per cent larger than last Easter with increased call for *Harrisii* lilies. Large supply of flowers of good quality and prices a trifle lower than last year. Increased call for blooming plants over last year. The quantity of cut flowers handled was much larger than any previous year. Florists here are exceedingly well pleased with the Easter trade of 1890.

DENVER, COLO.—About the same as last Easter with increased call for potted callas. Prices about as usual at this season. *Candidums* and callas were scarce. Quality of stock was good except on roses, many of those to be had had been held for some time. A decided increase in the call for blooming plants. Strange to say some violets were left over.

WORCESTER, MASS.—About 25 per cent larger than last Easter. Supply good and no advance in prices. Quality of Dutch bulbous bloom much better than previous years. In plants there was an increased call for azaleas, lilies, tulips, narcissus and hyacinths. Palms and other ornamental plants were largely called for to use in decorations.

SCRANTON, PA.—About 20 per cent larger than last Easter, largest increase being in the call for hydrangeas, Dutch hyacinths and *Harrisii* lilies. Supply equal to demand except on those noted as in increased demand. Quality of all flowers except carnations was better than last Easter. A decided increase in the call for blooming plants.

BALTIMORE.—Much in advance of last Easter, at least 10 per cent increase. Supply not equal to demand, prices somewhat lower than last year, quality of flowers rather better. Great increase in the call for blooming plants. The decorations in the cemeteries were a great feature in this city, they were much more frequent than usual.

RICHMOND, VA.—Much larger than last Easter, two florists reporting double the amount of sales made last year. Less call for *candidums* and more for *Harrisii*. No change in prices from last year, supply hardly equal to demand. Quality of flowers compared favorably with last Easter. A very largely increased call for blooming plants.

NEW HAVEN, CONN.—About 10 per cent larger than last Easter with more demand for *Harrisii* lilies and less call for *candidums* and callas. A good supply of everything except carnations, quality about as usual except lilies, which were poorer. Prices rather lower than last Easter. A small increase in call for blooming plants.

SPRINGFIELD, ILL.—About 25 per cent larger than last Easter with increased call for *Harrisii* lilies and *Spiraea japonica*. Increased demand for white flowering plants; not much sale for geraniums or callas. With eight to ten florists here we are generally equal to any occasion, but Easter trade this year hustled us.

COUNCIL BLUFFS, IA.—One third larger than last Easter with increased call for *Harrisii* and decreased demand for *candidum* lilies. Prices about one third lower than last Easter, quality of flowers better, supply equal to demand. The weather being fine and Easter coming early gave us a tremendous amount of bloom.

MEMPHIS, TENN.—About 25 per cent larger than last Easter. More call for *Harrisii* lilies and less for callas. Supply was not equal to demand, quality and prices not quite so good as last year.



A SMALL SHOW HOUSE. [SEE PAGE 431]

One florist reports an increase and another a decrease in the call for blooming plants.

DETROIT.—Much larger than last Easter with increased call for Harrisii lilies and choice roses. Prices ruled about the same as last year, supply equal to demand, quality good. A good demand for blooming plants at good prices, especially for azaleas, rhododendrons, roses and hydrangeas.

LONDON, ONT.—About one fourth larger than last Easter. Prices about same as last year, possibly a trifle better. Supply short, no marked difference in quality from last Easter. Not as much church decoration as formerly, but more loose flowers sold for house decoration.

UTICA, N. Y.—About 15 per cent larger than last Easter, prices about same as last season, supply not equal to demand, quality of flowers about same as last year. Increased demand for blooming plants. White flowers seemed to be wanted more than others.

HAMILTON, ONT.—Larger than last Easter with increased call for Harrisii lilies, prices better, supply short, quality good, increased call for blooming plants. Buyers as a rule neglect to order until a day or so before Easter and many are disappointed.

PEORIA, ILL.—Much larger than any previous Easter and sold at better prices. There was a very liberal supply but could have sold more. Quality of flowers rather better than last year. There was an increased call for well grown plants of all kinds.

NASHUA, N. H.—About 10 per cent larger than last Easter, supply a little short of meeting the demand, prices ruled about the same as last Easter, candi-

dums not up to standard in quality. A slight increase in the call for blooming plants.

KANSAS CITY, MO.—About same as last Easter. Increased demand for lilies, less call for narcissus, valley and azaleas. Prices about as usual at the season, supply equal to demand, quality better than usual. Decrease in call for pot plants.

GRAND RAPIDS, MICH.—About one third larger than last Easter with an increased call for violets, valley, tulips and similar spring flowers. Prices about same as last Easter, supply somewhat short, quality of flowers fully as good as last year.

PROVIDENCE, R. I.—Much larger than last Easter, the main increase being in pinks and roses. Supply not equal to demand and quality of flowers not so good as last season. Pot plants of Lilium Harrisii were in demand at \$1 each.

DALLAS, TEXAS.—Much larger than last Easter with decided increase in call for lilies, prices better, had to order flowers from eastern cities to help meet demand. Quality of roses fair, lilies fine. Increased call for blooming plants.

SAN ANTONIO, TEXAS.—Owing to the coldest norther we have had this winter striking us February 27, the supply of flowers for Easter was quite inadequate to supply the demand and floral work was very scant.

ATCHISON, KAN.—Trade was one third larger than last Easter; every thing went clean, prices about the same as last Easter. Very few set pieces sold, the weight of the trade being in loose flowers and plants.

WILMINGTON, DEL.—Somewhat larger than last Easter with increased demand for Harrisii lilies. Prices ruled same as last year, supply nearly equal to demand,

quality good. Increased call for blooming plants.

ST. PAUL.—Larger than last Easter, prices about the same as last year, supply equal to demand, quality equal to previous years. Some florists noted an increased call for the cheaper grade of flowers.

ALBANY, N. Y.—About 25 per cent larger than last Easter, quality of flowers about the same as last year, prices obtained somewhat higher, supply was equal to demand at prices asked.

SPRINGFIELD, MASS.—Much larger than last Easter, prices and quality of flowers about the same, supply short. Increased call for potted plants of Harrisii lilies, hydrangeas and choice plants.

TORONTO, ONT.—Much larger than last Easter. Prices about the same as last year, quality of flowers better, supply equal to demand. Roses and valley led in demand.

HARRISBURG, PA.—Much larger than last Easter. Supply rather short and quality not quite as good as last year. Decided increase in the call for blooming plants.

MILWAUKEE.—Larger than last Easter, prices somewhat better, supply about equal to demand, quality of flowers better. Very little made up work called for.

DAVENPORT, IA.—About 10 per cent larger than last Easter, prices about as usual at the season, supply short, quality good, no change in call for plants.

WORCESTER, MASS.—Easter sales were larger than last year, the calls being mainly for loose flowers. Quality of flowers was good.

IOWA CITY, IA.—Easter trade the best for years. All flowers sold at fair prices. Roses and lilies in the lead. No call for plants.

Philadelphia.

The spring exhibition of the Pennsylvania Horticultural Society was pronounced by competent judges to be one of the finest ever given by the society at this season of the year. The arrangement of the exhibits was very effective, and the attendance was very satisfactory.

As might have been expected there was considerable interest manifested in the contest for the \$300 premiums for the Wootton Rose, offered by C. Strauss & Co., of Washington. The first premium, \$150, was awarded to J. N. May, about which there was no question. But Joseph Heacock himself, who was awarded second premium, \$100, quite expected that Coles and Whitely, who received third of \$50, would have had the second prize.

It was conceded by all rose growers present that the Bennetts which Pennock Bros. exhibited were the finest ever seen here. One enthusiast went so far as to say, "They were the finest ever grown." They certainly were magnificent large flowers, bright color, ample foliage, and on stems probably eighteen inches long. They were grown by Aldrich Pennock, of Lansdowne, a young son of the old and well known firm of that name.

Joseph Heacock's roses were all fine, as may be understood by a glance at the premiums as awarded.

C. F. Evans has some fine Ulrich Brunner and Magna Charta, and his La France were superb.

There was a second award made on the third day for cut roses; Coles & Whitely carried off a goodly number of premiums on this occasion.

Pennock Bros. had some fine cut flower work—a dinner table design. Some of the favors were Sweet Peas, which attracted much attention, as they have never been seen in this city at this season of the year before.

Craig & Co. decorated the stage with palms and other fine foliage plants which was quite a feature.

Pitcher and Manda's display of orchids was of course the "Star" attraction. Too much cannot be said in praise of this firm's enterprise in bringing so many fine specimens so long a distance. It is not, perhaps, the distance, so much as the inconvenience of shipping valuable plants, in the manner which has to be adopted—that is, by express. If it were possible to charter a through freight car, it would be much less expensive, more satisfactory and an even larger display could be made.

The center of the hall was taken up by four large tables of decorative growing plants which were in competition for three premiums. One hundred feet was the original space allotted to each exhibit, but it was mutually agreed upon by the officials and the exhibitors that 140 feet be allowed, which proved to be a wise move, as it gave the whole show a more easy and graceful appearance, and the space was filled to better advantage. It will be seen that the veteran prize taker, Wm. Joyce, secured first honors.

Heron & Nisbit had a grand display of cut flowers.

Joseph Kift & Son added to the interest of the exhibition by some novel window decorations.

PREMIUMS AWARDED.

The following premiums were awarded: For a collection of orchids in bloom—First, to Pitcher & Manda; second, to Chas. F. Evans.

For three orchids in bloom—First, to David Emery, gardener to Charles Dissel; second, to Pitcher & Manda.

For azaleas, six plants, six varieties, not over eight inch pots—First to W. K.

Harris; second, to F. R. Sykes, gardener to Mrs. Harry Ingersoll.

Azaleas, two plants, two varieties—First, to Robert Wark, gardener to E. W. Clark; second to Fred R. Sykes.

Azaleas, specimen, white—To Robert Wark.

Azaleas, specimen, any color—First, to Robert Wark; second to David Emery.

Zonal geraniums, 12 plants, 12 varieties—To J. W. Colflesh.

Zonal geraniums, six plants, six varieties—To J. W. Colflesh.

Zonal geranium, specimen—First to David Emery; second, W. K. Harris.

Collection of twenty-five plants, different varieties, in bloom—To J. W. Colflesh.

Decoration of growing plants, not over 140 square feet—First, to William Joyce, gardener to Miss M. L. Baldwin; second, A. Lutz; third, Robert Wark.

Rose, specimen—To W. K. Harris.

Ferns, twelve varieties—To Thomas Long, gardener to A. J. Drexel.

Fern, specimen—First to Robert Wark; second, to David Emery.

Hydrangeas, six plants—First, to W. K. Harris; second, to H. Engler; third, to J. W. Colflesh.

Hydrangeas, specimen—First, to W. K. Harris; second to J. W. Colflesh.

Spiraea Japonica, 6 plants—First, to Craig & Brother; second, to W. K. Harris; third, to H. Engler.

Cinerarias, 12 plants—First, to Thomas Long; third, to Gebhardt Huster, gardener to Mrs. Heyl.

Hydrangeas, 6 plants—First, to W. K. Harris; second, to H. Engler; third, to J. W. Colflesh.

Marguerites, 6 plants—First to W. K. Harris; second, to J. W. Colflesh.

Mathiola, 6 plants—Second, to J. W. Colflesh.

New or rare plant—Thomas Long for Heliconia aureo-striata; second to Pitcher & Manda.

Fifty bedding plants in bloom—First to Gebhardt Huster; second to Henry G. Standen.

Callas, 6 plants—To H. G. Standen.

Six Cyclamen—To David Emery.

BULBS.

25 Hyacinths—First to Henry Surman; second, to W. K. Harris; third to Gordon Smirl.

12 Hyacinths—First, to Henry Surman; second, to W. K. Harris; third to Robert Wark.

Tulips, six varieties—First, to Henry Surman.

Tulips, in boxes—To Henry Surman.

Tulips, 12 varieties—To Henry Surman. Twenty-four single Narcissus, trumpet variety—To Henry Surman.

Lilium longiflorum—First to C. D. Ball; second, Craig & Bro.

Lilium Harrisii, six plants—First to W. K. Harris; second to Craig & Bro.

Lilium candidum, six plants—To J. W. Colflesh.

Specimen Lily, any variety—To W. K. Harris.

Special premiums as follows: For collections of foliage plants, to H. A. Drecker and Charles Dissel, Esq.; for a collection of Anthuriums, Pitcher and Manda; for window decorations, to J. Kift & Son; for Hydrangea, "Thomas Hogg," to John Curwen, Jr.; for specimen plants, to F. R. Sykes.

The John Gardiner & Co. premiums for spring bulbs—First, to William Jamison; second, to J. W. Colflesh. Special mention to W. K. Harris for a box of crocuses.

DESIGNS.

Basket of cut flowers—To Pennock Bros. Six corsage bouquets—To Heron & Nisbet.

Bride's bouquet—First, to Pennock Bros.; second to Miss Annie Bisset.

Fair bridesmaid's bouquets—To Pennock Bros.

Vase of roses—To Heron & Nisbet.

Dinner table decoration—To Pennock Bros.

GROWERS' AND AMATEURS' LIST.

Collection cut carnations—To Henry D. Standen.

ROSES.

12 "Perle des Jardins"—First to Joseph Heacock; second, to C. F. Evans.

12 "Niphetos"—First to Joseph Heacock; second, to Gordon Smirl.

12 "The Bride"—First, to Charles F. Evans; second, to Coles & Whitely.

12 "W. Francis Bennett"—First to Joseph Heacock; second to C. S. Price.

12 "Papa Gontier"—First to C. F. Evans; second to Joseph Heacock.

12 "Sunset"—First, to Joseph Heacock; second, to C. F. Evans.

12 "Catharine Mermet"—First to C. S. Price; second, to C. F. Evans.

Any other variety—First to Edwin Lonsdale; "Mad. Hoste," second, to C. S. Price, "Pierre Guillott."

12 "La France"—First to C. F. Evans; second, to Gordon Smirl.

12 "Mad. Cusin"—First, to Edwin Lonsdale; second, to C. F. Evans.

6 "Mme. G. Luizet"—First to Edwin Lonsdale; second, to C. F. Evans.

6 "Mrs. John Laing"—To C. F. Evans.

6 "Merveille de Lyon"—To C. F. Evans.

6 "Ulrich Brunner"—First to Edwin Lonsdale; second, to C. F. Evans.

6 "Magna Charta"—To C. F. Evans.

The three special prizes offered by C. Strauss & Co., Washington, D. C., for 12 cut blooms of "Souvenir of Wootton" rose, were awarded as follows: First, to J. N. May, Summit, N. J., \$150; second to Joseph Heacock, Jenkintown, \$100 third to Coles & Whitely, Lansdowne, \$50.

FLORISTS' LIST.

Collection of Carnations—Pennock Bros.

12 "Perle des Jardins"—Pennock Bros.

12 "Niphetos"—Heron & Nisbet.

12 "The Bride"—First, to Heron & Nisbet; second, to Pennock Bros.

12 "W. Francis Bennett"—Pennock Bros.

12 "Papa Gontier"—First to Heron & Nisbet; second to Pennock Bros.

12 each of "Sunset," Catharine "Mermet," "La France," "Mad. Cusin," and 6 "American Beauty," and any other variety, to Pennock Bros.

6 "Gen. Jacqueminot"—First to Heron & Nisbet; second to Pennock Bros.

6 "Mme. G. Luizet"—First to Heron & Nisbet; second, to Pennock Bros.

6 "Mrs. John Laing"—First, to Heron & Nisbet; second, to Pennock Bros.

6 "Ulrich Brunner"—First, to Heron & Nisbet; second, to Pennock Bros.

6 "Puritan"—To Pennock Bros.

Boston.

MASS. HORT. SOCIETY SPRING EXHIBITION.

The usual exhibition of spring flowering bulbs, orchids, azaleas, etc., was held in Horticultural Hall on March 26, 27 and 28. In many respects it was one of the best exhibitions ever given by the society at this season of the year. The arrangement of the various displays was most effective and the quality of everything shown was uniformly good. Indeed, the show was most notable for the entire absence of anything of an inferior character and was throughout creditable to the society and the exhibitors alike.



SPECIMENS OF GERMAN FLORAL ARRANGEMENT. REPRODUCED FROM MOLLERS' DEUTSCHE GARTNER-ZEITUNG

In some sections of the bulb display the competition was light, and the number of plants shown not as large as on some former occasions. But the hyacinths were pronounced the best ever seen here, and some of the tulips, especially a set shown by A. H. Fewkes, were remarkably fine. The first prize for a general display of spring flowering bulbs was awarded to Chas. J. Dawson, and it was well worthy the recognition bestowed. The collection comprised a very large number of species and varieties, including many kinds that are rarely seen.

The leading premiums in the bulbous section were awarded to J. L. Gardner,

N. T. Kidder, Dr. Weld, Thos. Clark and W. S. Ewell.

The show of orchids was as usual the center of attraction for the visitors, and as a matter of course for the gardeners also. The handsomest plant in the hall was a *Dendrobium nobile* from Edward Butler, gardener at Wellesley College. It was an exceedingly well grown specimen, flowered clear to the bottom. The prizes offered for such plants at the spring show are entirely out of proportion to the skill required for their production, and seem most trivial when compared with the premiums for the Dutch bulbs. A special orchid exhibition, say about May when

valuable plants can be moved with safety, with premiums liberal in amount would no doubt be a good move for the society, and would receive a patronage from the public that would probably exceed that accorded to any other special exhibition during the year.

The display of orchids from E. W. Gilmore, of North Easton, was very fine, the plants being clean, well grown and well bloomed. Noticeable among them was a good specimen of *Angraecum Leonis*, which formed the center of the group. In N. T. Kidder's collection were three superb specimen *Cypripediums*. The orchids contributed by John L. Gardner, A.

W. Spencer and Norton Bros. were all beautiful and interesting.

The collection of hybrids exhibited by Mrs. F. B. Hayes, comprised over three hundred blooms in seventy varieties and was one of the best displays of cut roses ever shown here. It is doubtful if it can be equalled even in June.

The tea roses were well represented also, fine vases of the best varieties being shown by Thos. H. Meade, Waban Conservatories, Norton Bros., W. H. Elliott, A. P. Calder and Ernst Asmus. The latter named gentleman contributed fine specimens of Mme. Hoste, Mme. de Watteville and Mme. Cusin, indicating that New Jersey is still in the race on the rose question. Mr. Asmus also kindly served on the committee on awards, filling the place of an absent member, and the same committee was further enriched by the addition of Mr. Winfried Kolker, of New York, who fortunately was in Boston at the time.

In Indian azaleas the competition was slight. The Lyman Plate for six specimen plants was awarded to N. T. Kidder. Jos. H. White, Dr. C. G. Weld and Edw. Butler were also prize winners in this department.

Among the most attractive features of the show were an interesting collection of uncommon plants contributed by the Harvard Botanic Garden, a large variety of forced native spring flowering plants from Chas. J. Dawson, *Cypripedium acaule* from Jackson Dawson, a noble orange tree loaded with flowers and fruit in all stages from N. T. Kidder, and the very rare *Agave Vandervinnii* in bloom from W. E. Doyle. The appearance of the halls was greatly enhanced by contributions of fine palms, araucarias, bays and other stately plants from Frank Becker, and from W. E. Doyle. W. C. Strong and Temple & Beard also showed a number of potted evergreens, including some valuable varieties. The first prize for greenhouse plant was awarded to John L. Gardner for the old fashioned favorite *Eriostemon buxifolium*. Another nice specimen plant was A. H. Pewkes' *Streptosolen Jamesonii*. Mr. Zirngiebel was on hand with his pansies and took all the premiums. The *Bugnot*, *Cassier* and *Trimardeau* blooms shown by him were superb. In carnations there were some good ones from R. T. Lombard and Wm. Nicholson. Mr. Lombard's "Hector," a brilliant scarlet variety was an especial favorite.

The committee of arrangements found it difficult to get any idea in advance from the exhibitors as to what they would show, and their labor was needlessly increased thereby.

It was decidedly amusing to see how thoroughly everything was hidden from view when the committee made its rounds of the greenhouses just before the show, and all the secretiveness caused by dread that their competitors would in some way find out what they had and would take advantage of it. It might be a good idea to require the members of the committee of arrangements to take an iron-clad oath not to reveal any of the secrets exposed to their view to any person whatsoever, etc., and then possibly they could go on with their preparations intelligently. The gardeners are a very cunning craft.

WM. J. STEWART.

New Orleans.

The fourth spring exhibition of the New Orleans Horticultural Society was a decided advance over previous ones. The exhibits were large and of very good

quality and the attendance was very satisfactory.

Following is the list of awards: Best collection of plants—1st prize, J. H. Menard; 2d J. Muller. Best collection of geraniums—1st E. Valdejo. Best collection of caladiums—1st B. Rodder, gardener for Dr. Richardson; 2d J. Kling. Best collection of ferns—1st Jos. Muller and Delgado, medal; 2d Jno. Eblen. Best specimen fern—1st E. Valdejo. Best collection of *Rex begonia*—1st Jno. Eblen. Best collection of flowering begonia—1st F. Ritter. Best collection of palms—1st Jos. Muller; 2d J. H. Menard. Best collection of crotons—1st Jos. Muller. Best collection of orchids in bloom—1st John Eblen. Best collection of gloxinias—1st E. Eismhauser. Best collection of colons—1st J. H. Menard and Durant da Ponte, gold medal; 2d E. Valdejo. Best collection of cucurbitaries—1st E. Valdejo. Best collection of pansies—1st F. Ritter; 2d L. Jaeger. Best carpet bed—1st E. Beck. Best bed blooming plants—1st L. Jaeger. Best bed blooming and foliage plants—1st A. Palacio. Best vase and jardiniere—1st J. Kling, gardener for Mr. Hutchinson. Best hanging basket—1st J. Kling. Best bridal bouquet—1st J. H. Menard; 2d Charles Eble. Best hand bouquet—1st Charles Eble; 2d J. H. Menard. Best loose bouquet—1st Charles Eble; 2d J. H. Menard. Best corsage bouquet—1st J. H. Menard; 2d Charles Eble. Best table-decoration—1st Charles Eble; 2d J. H. Menard. Best handle basket—1st Charles Eble; 2d J. H. Menard. Best floral design, gold medal to J. H. Menard.



BY W. W. COLES.

[Read before the Florists' Club of Philadelphia.]

It is with much reluctance that I undertake to speak upon a subject so important as this, viz.: "What is the cause of the disease among winter-flowering roses commonly called yellows, and what is the cure?" I fully realize my inability to instruct such a body of older and more experienced florists, but as I am always willing to do the best I can when called upon by the craft, I have made a few notes of a crude nature on the subject.

The "yellows," a disease known among roses, has attracted considerable attention within the last few years, especially so this winter as it has been noticeable in more places than is usual. I have always made inquiries wherever I have seen this disease as to its cause and the answer in nine cases out of ten would be, "I don't know, it is a mystery."

The question was put some time ago to Mr. John Burton of Chestnut Hill, whom I consider one of the shrewdest and best rose growers in the country, and he assured me that it was not through over watering as is claimed by so many. So far as my experience and observation goes I agree with Mr. Burton and don't think it is so much the watering as most people imagine, or at least not over watering. I have a house of Brides and also a house of Mermets in my mind that I know have been kept very wet ever

since they were planted last summer, in soil which is a heavy clay loam; these plants are free from the "yellows" and perfectly healthy with the exception of one front bench of Brides which have this dreaded disease. These roses are on slate benches, the pipes running under the front and back tables, which, as a matter of course, would dry the plants out quicker, and as it is on one of these tables that the unhealthy plants are grown it goes far to prove Mr. Burton's assertion.

We do not see much of this disease till the dark days of winter set in, say the first of December, and if they are not past recovery they generally begin to improve after the first of March, when, as a rule, we can give the houses more ventilation.

Now I am of the opinion that one of the causes of this disease is a lack of some kind of food which the plants require during the absence of sunlight and air. I have used with satisfactory results sulphate of ammonia—a 4-inch pot full to about 300 square feet of bench, thoroughly mixed with a 10-inch pot full of bone or dry soil and put on as a top dressing.

The prevailing idea among growers that the disease is caused by over watering is easily accounted for, because as soon as any disease strikes a plant root action stops, and in a few days, with the usual amount of syringing, the bed becomes too wet, whereas if the plants were in a healthy and working condition they would absorb the ordinary amount of moisture; and thus the conclusion is arrived at, that because the beds are too wet, over-watering is the cause of the trouble, when such has been proven not to be the cause.

I have noticed that in every instance this disease is worse where the plants receive the least amount of air, viz.: through the center of a wide bench, the plants near the walks are always healthier and stronger where as a matter of course they get considerable more air.

Another cause may be cutting the buds too freely in the fall. We all know that roses produce a very heavy crop in October and November, and such varieties as *Bride*, *Mermet* and *La France* we have to cut with long stems to sell them. In so doing (if we cut all the buds they produce) we weaken the vitality of the plants to such an extent that they cannot recuperate before the dark days of winter are upon us. I am satisfied it would pay the most of us far better not to cut so freely in the fall months. There is no doubt in my mind that anything that weakens the vitality of the plants has a tendency to encourage this disease.

I must apologize for writing such a hasty and short paper but I trust enough has been said to bring out a discussion that will be profitable to us all.

Mme. Hoste.

The accompanying illustration is engraved from a photograph sent us by Mr. J. N. May. The rose occupying a central position is a bloom of Mme. Hoste, and a clear idea of its size and form may be obtained by comparing it with the bloom of Bennett at the left and *Bride* at the right.

A good idea of the size of the spike of *mignonette* may also be had by comparing it with the roses. It shows what may be done with this flower by careful culture and selection of the seed. The spike shown is grown from a select strain of Miles' Spiral.

Most Suitable Varieties.

Which are the most suitable varieties to grow? This is a question that is very



GIANT MIGNONETTE. MME. HOSTE.

W. F. BENNETT

THE BRIDE.

important to all of us who are engaged in the business to-day, whether it be for the large wholesale markets or for the local trade in smaller cities or towns. The first thing to consider is what will suit the purpose best under all circumstances. Some varieties will undoubtedly pay the grower better than others, yet it is hardly policy to grow those varieties to the exclusion of all others; particularly if they are for local or home sale. I have frequently been told that American Beauty does not pay the grower for any market except the very largest cities, and unless the buds can be sold at a good price it will not pay to grow it anywhere. For the smaller towns, where the grower retails his own flowers, Souvenir de Wootton will, if well grown, pay the florist very well, as it is very free flowering, produces a fine stem with handsome foliage; but it must be kept constantly disbudded, allowing only one bud to a shoot, otherwise it will be no good at all; but if well grown it is really a very good rose for the above purpose, and can be produced as cheaply as any other rose. But for the large markets where American Beauty will bring a fair price the Wootton is not wanted.

Some others that are good free bloomers and should be included in every collection even for the smallest local trade are La France, Duchess of Albany, Mme. Hoste, Marquis de Vivens, Mme. Watteville and Mme. Cusin. They are all very free blooming and will do well with reasonable treatment. The first two named are very large, perfectly distinct and desirable roses. Mme. Hoste (yellow) is also a very free flowering variety producing fine buds, quite distinct from any

other yellow; another good quality in the last named is that it improves in color after being cut and put in water for a few hours; it is a good keeper and will travel well.

Herewith I enclose copy of number of roses cut, per foot of space and value per foot up to February 28, though some of the varieties named on the list are hardly a fair comparison, such as Duchess of Albany and Mme. Hoste, as we have sacrificed a great many buds for the cuttings; in fact the same may be said of nearly all our stock, because if we are getting short of plants we throw very many buds away to get the wood when the roses are of little value in the market.

	Number of buds 1 st to Dec. 31, '89.		Number of buds 1 st to Feb. 28, '90.	
	Buds.	Cents	Buds.	Cents
Bon Silene	14.00	27.36	20.00	44.00
The Bride	4.53	25.17	6.45	42.26
C. Mermet	4.60	24.03	6.40	41.38
La France	9.00	55.00	13.50	86.38
Niphetos	11.80	35.91	16.99	54.35
Perle des Jardins	6.95	17.21	8.76	26.00
Papa Gontier	11.00	39.63	15.67	61.59
Mme. Cusin	6.56	15.50	9.85	29.99
Mme. Watteville	7.58	32.27	10.00	54.51
W. F. Bennett	11.50	41.15	15.00	60.07
Am. Beauty	2.36	49.44	4.45	65.29
* Mme. Hoste	5.00	30.60	8.10	54.76
* Duchess of Albany	12.00	97.72	15.30	132.58
* Souv. Wootton	5.00	26.22	8.00	36.71
Marquis de Vivens	15.12	24.95	21.00	59.38
Sunset	10.00	26.30	12.72	41.17

Those marked with a * are from Oct. 15 only.
Summit, N. J. JOHN N. MAY.

A Small Show House.

I send you to-day a photograph of my "exhibition house." The view is from the office door and gives but a partial view of the house. Five years ago the largest plant in my collection was in a 4-inch pot and now I have areas ten feet high and latanias with five feet spread, and find the house pays as an advertisement of my business. The house is always kept in order and there is always something in it to interest lovers of plants. Many people come just to see this house and they usually buy something before they leave. So well assured am I that the house is a paying investment that I intend to build a larger and much better one for the purpose. C. C. BAUM.

Dover, Del.

Hardy Plants.

APRIL FLOWERS.

Many of the flowers mentioned, page 393, will last through April into May, and to those we may now (the middle of April) add many other species and varieties. From this time on till the end of June is the heyday of hardy plants so far as multitude in variety is concerned.

AUBRIETIAS are now little mats of violet, purple and rose-purple. Although so dwarf they are persistent plants, easy to raise from seed, easy to grow and long lived, but they love an open spot and are excellent plants for rockwork. Eyrei, Leichtlini, græca and violacea are pretty kinds.

HEPATICAS are plentiful in the woods on slopes, and if lifted and transferred to the garden they grow and bloom well. The double flowered varieties are jewels among spring flowers, but hard to get up a large stock of.

CALTHA PALUSTRIS or Marsh marigold or "cowslips" as they are called here-about are abundant in our swamps now; but there is a double flowering garden variety of it that is really a showy plant and easy enough to grow in a cool moist faintly shaded spot.

OROBUS VERNUS is a little purple and blue pea flower in bloom now. It grows in bunches 12 to 18 inches high, is very hardy and long lived and quite pretty, and seems to thrive well in the open border or partial shade. Easily raised from seed. And when about it get some seed of Orobis niger, also a small plant, and O. Lathyroides, a more vigorous species and later bloomer.

DORONICUMS.—D. Caucasicum is a moderately small plant with bright yellow sunflower-like blossoms about two inches across; D. Clusii is larger and nearly as early, and D. pardalinesch is still more vigorous and later. They keep in bloom for several weeks and are good open border plants. Easily increased by division. This had better be done in fall.

THE TWINLEAF (Jeffersonia), although a wild plant, is welcome among spring flowers; the blossoms are white and of brief duration. Likes a somewhat shady place. Easily grown, long lived and self sows itself freely where left undisturbed.

TRILLIUMS are handsome and desirable plants loving moist, faintly shaded quarters, and even doing fairly well in an open spot if the soil is moist. T. grandiflorum and T. erectum album are white and the best, but the purple and painted trilliums are nice garden plants. Stock is increased by collecting wild plants.

ENGLISH PRIMROSES.—These come in a little ahead of the showy polyanthus

and if grown in cold frames blossom with great profusion. As open air plants they must have a slightly shady spot in summer. Get up a stock from seed. But the seeds do not germinate readily, that is, I have never known half of the seeds sown to grow. The plants can be naturalized in moist, sloping woods.

POLYANTHUSES.—April is their heyday. The best results are obtained by treating them as cold frame plants in winter; in spring they may be left to bloom in the frames or lifted and planted in beds. Very easily raised from seed. If the seed is sown now the seedlings will bloom next spring. Splendid strains are in the market.

DAISIES.—These are most satisfactory when wintered and bloomed in cold frames. Or plant them out in beds in spring. The finest varieties are perpetuated by division, but a fine display may be had from seed. Longfellow and Snowball come freely from seed, and while there may be a good many singles or semi-doubles, the proportion of good flowers is considerable.

PULMONARIA SACCHARATA is the earliest of the borages, it has mottled silvery leaves and rose-purple or bluish flowers. Other two forms are *P. mollis* and *P. azurea*. Long lived perennials and worth growing on account of their earliness. The Virginia lungwort (*Mertensia virginica*) is a near relative of the pulmonaria and more beautiful, but later blooming. It grows very abundantly in some parts of the country. Other desirable kinds are *M. Sibirica*, *oblongifolia*, *alpina* and *Dahurica*.

HYACINTHS.—Roman hyacinths were in bloom with us out of doors in March this year, and we began cutting Oriental (Dutch) hyacinths at Easter, but they won't be in their best condition till the middle of April. Grape and leather hyacinths (*Muscari*) come in about the 15th to the 20th of April. The grape ones are desirable because of their persistent nature as well as beauty, the leather forms are odd, and the musk hyacinths rather inconspicuous.

PACHYSANDRA PROCUMBENS, a low native plant from the Alleghenies, is worth mentioning on account of the great profusion of purplish, but not showy, flowers it bears at this time. *P. terminalis* is a Japanese species, and a very pretty evergreen plant which will some day become quite a desideratum for growing in shady places. Its flowers are whitish, inconspicuous and freely produced. There is also a very prettily variegated leaved variety of this species in cultivation.

HELONIAS BULLATA is a New Jersey bog plant that takes kindly to cultivation in similar places. Its stout scapes rise one to two feet high and are terminated with close racemes of pretty pink flowers.

PHLOX SUBULATA, the moss pink, blooms from April into May. There are many varieties differing somewhat in the color of their flowers, also in the slenderness of their foliage and denseness of habit. The pure white is the best. We have a long belt of it which when in full bloom is like a wreath of snow. Can be increased from cuttings of the young or half ripe wood, rooted slips of the old wood or division of the clumps. About the end of the month *Phlox amana* and *P. reptans* also come into bloom and are bright and gay.

EPHYMBIA MYRSINITES has yellowish flowers and in its way is good looking enough, but not showy.

GEUM TRIFLORUM from the Sierra Ne-

vada is not a showy plant, but worth having because it is so easy to grow and long lived and lives well in the open border. Many of the pretty yellow kinds don't do this. *Geum coccineum* is the best of the garden sorts, and the double varieties deserve a place, but altogether we could get along without them.

STELLARIA HOLOSTEA grows wild in European woods, running freely in the grass, but here we grow it as an open border garden plant and it makes one of the handsomest snowy cushions in our borders, blooming in April and May.

VERONICA GENTIANOIDES is one of the earliest of our speedwells. A neat growing plant with upright spikes of pale blue flowers. A host of veronicas bloom later on.

DICENTRA EXIMIA, a handsome little plant with fern-like leaves and pink purple flowers that appear about the third week in April. It keeps in bloom all summer. Dutchman's Breeches and squirrel corn are also pretty little early blooming wild plants of brief duration. Towards the end of the month *Dicentra spectabilis*, well known in gardens as "bleeding hearts," comes into bloom.

CORYDALIS SOLIDA, the common early purple fumitory, comes in first among common sorts. It is an old and common plant and happy everywhere. A bolder and more showy species is *C. nobilis*, which does not bloom till May.

ANEMONE SYLVESTRIS is worth growing. It is easily raised from seed, blooms when a year old and loves faintly shaded, moist land, but will grow well in the open garden too. Its flowers are white and pretty.

THE UVIULARIS or bellworts come in about the 20th. Only those that grow in bunch-clumps, as *U. grandiflora* does, are worth growing; the creeping rooted sorts like *U. sessilifolia* are not showy enough.

IRIS PUMILA and its varieties are the dwarf irises so common in our gardens. They bloom in April and into May, and are generally known as spring irises.

THE EPIMEDIUMS are good garden plants, *E. macranthum*, white, *E. rubrum*, red, and *E. pinnatum*, yellow, especially. Although they will grow in the open border they love a shady place and good ground.

SAXIFRAGA CRASSIFOLIA, *cordifolia*, *ligulata* and *ciliata* are large, thick-leaved kinds and somewhat coarse looking, but they bear bold branched spikes of pink showy flowers in April and May. The first two seem to be perfectly hardy so far as frost is concerned, but dislike searing winds; the other two sometimes suffer in winter.

IBERIS SEMPERVIRENS began opening its blooms in March, but it will be the end of April before it is in perfection. A neat, evergreen, very hardy plant that becomes completely covered with white flowers. Indispensable to florists. It is being distributed innocently, but erroneously, as *I. Gibraltarica*, which is a biennial and barely hardy here.

COLUMBINES come in about the end of the month. The first is *Aquilegia Sibirica*, next *A. canadensis*, and then the great hybrid race which are only mongrels alongside of the lovely true species we grow.

AND SOME of the sea-thrifts (*ARMERIA*) now begin to bloom, and the bluetts (*Houstonia*) are scattered like tiny stars all over the meadows, the pearly everlasting is in bloom on the sunny bank,

and the yellow trollius in the moist border. The pink spring beauty is brightening up the woods and shady moist banks; white and yellow drabas bedeck our rockeries where also are the dark blue Appennine anemone, the golden anemone *A. ranunculoides*, Celandine poppy is blooming by the wayside, the great umbrella-leaved saxifrage in a wetish place, and gaudy tulips and bewitching pansies in the yard.

APONOGETON DISTACHYON.—Treated as a hardy aquatic, that is, planted in a warm sunny place and in water deep enough so that its roots may be beyond the reach of ice in winter, this beautiful and delicious water plant blooms from August or September till frost and in spring again from when the ice disappears till May. WM. FALCONER.

Nomenclature.

S. A. F. Committee on Nomenclature.

JAMES D. RAYNOLDS, Riverside, Ill., Chairman.

Roses:

ROBERT CRAIG, 49th & Market Sts., Phila., Pa.
EDWIN LONSALE, Chestnut Hill, Phila., Pa.
ERNEST ASMUS, West Hoboken, N. J.

Carnations:

A. E. WHITTE, Albany, N. Y.
JOHN THORPE, Pearl River, N. Y.
WM. FALCONER, Glen Cove, N. Y.

Palms, Ferns, and like Decorative Plants:

CHAS. D. BALL, Holmesburgh, Phila., Pa.
JOHN BURTON, Chestnut Hill, Phila., Pa.
W. K. SMITH, Botanic Garden, Washington, D. C.

Chrysanthemums:

JOHN THORPE, Pearl River, N. Y.
WM. FALCONER, Glen Cove, N. Y.
J. M. KELLER, Bay Ridge, N. Y.

Bedding Plants:

C. L. GRANT, 54 La Salle St., Chicago, Ill.
ROBERT CRAIG, 49th & Market Sts., Phila., Pa.
J. M. KELLER, Bay Ridge, N. Y.
A. E. WHITTE, Albany, N. Y.

Orchids:

DAVID ALLAN, Mt. Auburn, Mass.
BENJ. GREY, Malden, Mass.
WM. FALCONER, Glen Cove, N. Y.
J. FORSTERMAN, Newtown, N. Y.

Thanks It was Meant for Him.

EDITOR AMERICAN FLORIST.—DEAR SIR:—In your issue of April 1st I notice that your correspondent, "Taplin," refers to a party who is advertising certain novelties which can mean no one but myself, and asserts that I formerly sold an old familiar bedding plant as a novelty, under the title of "Rainbow Plant." Now this shows either malicious libel or a degree of ignorance unworthy any correspondent of the FLORIST. The seed I advertised last year as the "Rainbow Plant" is no bedding plant at all, but an annual, a variety of the amaranthus, as my catalogue plainly stated. It is the new variety introduced into Europe and America last year under the various names of *A. splendens*, *A. tricolor splendens*, *fulgens* and *Rainbow*.

This correspondent also refers to my advertising this year as "bearing about the same resemblance to the plants represented as the posters outside of a dime museum do to the freaks within," but in what respect the posters and freaks differ is not stated, and perhaps she is laboring under the idea that the posters fail to do justice to the freaks. It is, however, generally understood that the posters are deceptive, and this assertion that my advertising is fraudulent is a pretty broad one, and I desire your correspondent to state through the columns of this paper, in what respect the *Mary Washington* rose and *Rainbow Cactus* referred to do not come up to my claims. If your correspondent cannot furnish such information backed by positive proofs it is then in order for her to retract the statements she has made. The same correspondent also crit-



GROUP OF HYBRID ROCHEAS.

icises Messrs. ——— for advertising a pontederia as the Orchid Water-Lily, and from what she says one might infer that Messrs. ——— are trying to deceive the public. Any one who knows this firm knows that there is not a more honest or straightforward concern in the trade, and these criticisms appear to me to be entirely unjust and unfeeling for the public at large are accustomed to associating water plants with lilies, and they are all popularly known as some sort of "lily," and for a popular name "Orchid Water Lily" is perfectly applicable to this plant, and it is just as much entitled to be known as the Orchid Water Lily as *Convallus major* is to be known as the Morning-glory.

Another correspondent comments severely on the popular name which has been given that beautiful chrysanthemum, Mrs. Alpheus Hardy. Now, Mrs. Alpheus Hardy may be good enough for florists, but to ninety per cent of the amateurs who buy seeds and plants, that name has no meaning, while "Ostrich Plume," in two simple words, presents this plant to every lover of flowers in a way that will make them desire to possess it. [Pity it had not occurred to the introducer when naming it.—Ed.] The name is in no way deceptive, and is a most happy one to associate with that plant. The beautiful,

wide, incurved petals, covered with a feathery hair, suggests an ostrich plume more than anything else, and from the public at large as much thanks are due to Messrs. ——— for associating it with this name as there is to the party who introduced the plant; and it is as much entitled to be known as the "Ostrich Plume Chrysanthemum" as *Tropaeolum canariensis* is to be known as the "Canary-bird Flower." The public at large who cultivate flowers, demand popular and descriptive names, as far as possible, and I have never known a seedsman or florist who did not cater to this taste to succeed in building up a very large retail business.

JOHN LEWIS CHILDS.
Floral Park, N. Y., April 5, 1890.

[We believe there are no differences in these matters that could not be readily adjusted were all catalogue men disposed to meet half way the views of the best authorities on the subject. If the Society of American Florists, as a body, does not approve of the printing of the names and the naming of plants as done by certain catalogue men, it is much to be regretted that they do not meet with and win them to other views, if correct, otherwise we must believe that the highest aims of the committees of that body are good and conducive to the honor and welfare of the craft.]

If any one can give good reasons for the re-introduction of an old plant under a new name, before unknown, in large type, placing the true name in very obscure letters with it, our columns are open to him. We hold that no such name, if used at all, should be in larger type than the true and original one.—[Ed.]

Mrs. Alpheus Hardy.

SVN. "OSTRICH PLUME CHRYSANTHEMUM."

I think the communication in last issue from John N. May "strikes the nail square on the head," as to giving Mrs. A. Hardy two names. Call things by their right names thereby saving much confusion and not a little trouble. I think the committee on nomenclature can not report too soon or too strongly on this matter. It is deserving of every one's attention.

G. W. M.

—Isn't Mr. May crowding the pure souled catalogue men too far? It isn't so very long ago that a brand new name was given and the right one consigned to oblivion entirely. Now they are beginning to give the right one in brackets with the other. Surely this is progress. Hadn't we ought to train our guns on those who still follow the old plan of cutting loose entirely from the right name, rather than jump with both feet upon those who show an inclination to at least preserve the identity of the plant to those who have eyes with which to see and read?

A. M. B.

Hybrid Rocheas.

We owe to the kindness of Mr. Pynaert, of Ghent, the opportunity of figuring some hybrids said to be the result of crossing *Rochea coccinea* and *R. jasminica*. They were raised by M. Foncard, of Orleans, and received a first class certificate from the National Horticultural Society of France. The colors show all stages between those of the parents, ranging from white, flushed with rose, to deep crimson. The easy culture of these plants, and the beauty of their flowers, render them "plants for the million." They are particularly well suited for window culture. They are of dwarf habit, and may be kept pinched-in to form a close, bushy habit. They are easily propagated by cuttings, and we are assured, flower the same year as they are struck. A well-drained, rich, loamy soil, with a little leaf-mold and sand intermixed, suits them.—*Gardeners' Chronicle*.

Clematis "Paniculata."

Mr. Wm. Falconer's admirable article on herbaceous plants in your issue of March 1 has just been brought to my notice. In it he takes exception to the name "paniculata" for the clematis that has hitherto been sold as such. As I am in a measure responsible for all that have been sold under this name and as this fine plant is about to be distributed in quantity, it is imperative that the correct name be attached. Our original plants were imported from Japan some 10 years ago, where according to Thunberg, it occurs in the neighborhood of Nagasaki, and Thunberg is the authority for the name *paniculata*, though there are three synonyms, namely, *crispa*, *biternata* and *Vitalba Japonica*; but our plant corresponds exactly with all published descriptions of *C. paniculata* that we have access to, namely, DeCandolle's *Prodromus* and Nicholson's Dictionary of Gardening.

Mr. Falconer in the article referred to,

says "Paniculata isn't the name of the kind that is sold under this name, but no matter, this clematis, one of the fleecy white ones, is indispensable for September flowers, so get the plant and never mind the name." Now, will Mr. Falconer as a member of the S. A. F. committee on nomenclature kindly say what is the correct name? It may not be out of place to remark here that this question of nomenclature is one that is in urgent need of the attention of the society, though it is hard to see just how it can be properly carried on without the assistance of an extensive library and herbarium; the plant under note is a case in point.

Mr. Falconer told me that he raised his plants from seed, this I have never been able to do; our own plants show considerable variation, one is much more robust than the other, and a third received from Jackson Dawson under the name of C. robusta resembles the others in every respect except in that it is not so hardy, for when grown with our own plants it has all its buds above ground injured, while the others, even in February, had commenced growth and many are now in green leaf.

Mr. F. says truly that the plant is indispensable for September work, local florists are much pleased with it, for it is possible to cut sprays a yard long laden with Hawthorn-scented flowers and these are followed by prettily awned seed vessels that remain a long time on the plant. Another good point in its favor is that being a species it is not liable to the clematis disease as are the hybrid kinds, our once extensive collection of these being completely exterminated by the ravages of this disease.

Passaic, N. J.

E. O. ORPET.

Is Primula Obconica Poisonous?

In your last issue H. says that *Primula obconica* poisons his hands whenever they come in contact with the plant. I have had the same experience with *Primula sinensis*, but I have never heard that it has affected any one else in the same way. If primulas are poisonous we certainly ought not to sell them to our customers. C.

—I wish to add my testimony to that of B. in *FLORIST* April 1, in regard to *Primula obconica* being poisonous. Some time since I saw a note in an English paper to the effect that it was very poisonous. As I had been troubled with poison on my hands ever since I have had *P. obconica* in the house, I decided to take note of it, and I am very sorry to say that every time I handle the plant or flowers of it my hands will show it in a few hours, and in a very unpleasant and aggravating way. It must be very poisonous, as I am proof against most everything else in the way of poisonous vegetation, even poison ivy has no effect on me whatever. So, with Brother B., I have decided to throw the plants out, although I consider it a valuable plant otherwise. W. L. MORRIS.

Des Moines, Iowa.

—I see in your last issue a communication from "B." I have a number of times felt a stinging sensation like the sting of a mosquito, and a red blotch with an itching sensation, but I took no notice until my wife complained that there was some plant in the greenhouse that stung her hands but she did not know what. The back of her hands and her wrists are full of inflammation and spots so far as her gown sleeves come. I spoke to the

doctor and he thought it was eczema. I have no doubt it is the *Primula obconica*, am sorry for I have sold the product of 1,000 seed, have a few left. So good for cut flowers, but won't have no more if it is poisonous. A.

—*Primula obconica* does poison the hands, and by rubbing the hands on the face or neck a prickly sensation something like the sting of nettles will be felt. I have heard of several persons being poisoned by it, though it does not affect me. At one time I thought that any person who is not affected by coming in contact with our native poison ivy would not be affected by the primula. But I have found that such was not the case. I can handle both, while a person here can not touch primula, but can handle the ivy, and another person don't dare touch either of the plants named.

Rayhaw, N. J.

JOHN W. SALING.

—In answer to B.'s question in April 1 number I would say that the above named plant is poisonous to some people as I have been badly poisoned with it twice. I understand it has been analyzed by Harvard professors and they say it is the down on the flower stem that is poisonous. Have thrown out my stock except three plants and they are not for sale. It came near killing Mrs. Whittet and I am now suffering from it.

Lowell, Mass.

A. WHITTET.

—I find that when I use *Primula obconica* for wreaths or other work that it causes a good deal of itching and burning between the fingers and on the wrists, but by using a little soda it passes off in a few hours. I can not afford to throw it away. Strathroy, Ont.

I. S. CHALONER.



An Interesting Letter.

ED AM. FLORIST:—Your request regarding the crop of carnation flowers is at hand. It would have been an easy matter in this section to keep a record, the crop of flowers being very small with us. The wet season last year in New England was anything but favorable to the growth of the plants; they were housed in a rather poor condition and you may imagine the result. They were simply a failure, nor does it seem that the failure was in our section alone, but spread more or less over the whole country, carnations being scarce everywhere. One of our commission men in Boston was pressed hard and not able to fill his orders, and I advised him to send to the carnation growers west of us. "Why," he said, "that is where my orders come from."

The plants are now looking healthy enough, but do not bloom well and are making but little growth. As a conclusive proof of the bad effect of a wet season, even on light soils, I had last spring from the introducers a number of plants of Tidal Wave. As the plants in the fall did not grow any better than the balance of the lot in the field, I ordered, early in September, another lot from the same firm. In due time they answered that owing to the drought they could not be shipped in good order and would be sent after some rain. It was late in Oc-

tober when I received them and they were planted in the same house with the others. They grew vigorously and the lot, less than a hundred in number, gave more flowers than the 500 other plants in the same house. The result would have been the same I am certain with any other variety. From personal examination and reports from carnation growers in New England I may safely estimate the crop at one third of the average quantity. There is of course the usual exceptions, but have not heard of many where grown on a large scale.

Nor can the result be wondered at, considering the treatment that, with our system of forcing, the carnations as well as roses and violets are subjected to. The plants are in a perpetual state of vegetation, cuttings are taken in mid-winter, kept growing till planted out, then grown again till planted in and then forced for all they are worth, without a single period of rest. No wonder they are affected with so many cryptogamic diseases.

In the course of my correspondence with some of the specialists in carnations in France I have made inquiries about their system of cultivation. They propagate early in the fall, the cuttings as soon as rooted are planted closely in cold frames and kept dormant till wanted for planting out in the spring. But then there is less demand there for carnations in winter, and the plants are used mainly for summer and fall bloom, which is almost the reverse of our purpose here. But still, part of the stock might be reserved for propagation and we may yet be driven to it, as at the rate our carnations are grown they run out in a few years.

I am probably growing a larger collection than is really needed for market purposes; but with a view to testing them I have for several years past secured every variety of promise introduced here and in Europe, and I must admit that for market purposes, as a general thing, carnations of American origin have proved of more value than European ones as regards winter blooming properties, a fact which is substantiated by the growers there as well. Take for instance, Mr. Carle's catalogue (Lyons, France,) out of 200 varieties named (and Mr. Carle is probably the most extensive grower of carnations in the world) well, out of the whole number, only ten varieties are recommended as winter bloomers. Some of his carnations are really superb, as we have good reason to know, but not very prolific as winter bloomers. Let us hope that with the introduction of the new Italian hybrids or *Marguerites*, as commonly called, we may secure more reliable varieties, or infuse better blood into those we have already. For not every florist may take as cheerful a view as a certain brother florist in Boston, who when with a number of us discussing the ravages of the cut worm on carnations and means to prevent them, exclaimed: "Why, that is the best friend we have; only for the worm, carnations would be too cheap."

Needham, Mass. DENYS ZIRNGIEBEL.

American Seedlings.

American florists are coming to the front as originators of new carnations of decided value. In fact the bulk of the popular carnations of the day are of American origin. Among the first to work in this field was Mr. Chas. T. Starr, whose seedlings are well known and we are glad to place on record the following

facts regarding the production of some which have long had a hold upon public favor. The result of his first effort at crossing was the bright scarlet variety Lady Emma, from seed of Edwardsii fertilized with La Purite. In 1878 came the magnificent Buttercup from fertilizing Edwardsii with Astoria, and from the same pod of seed came Venus, Field of Gold and Duke of Orange. Golden Gate, a still more recent yellow is the result of crossing Hinz's White with Field of Gold. The beautiful seedling J. R. Freeman is from a crop of Century on Seawan; this is remarkably fragrant and is the deep rich crimson Seawan illuminated with the brilliant carmine of Century, the combination making a deep cardinal color.

Cost of Production.

In estimating the profits of carnation growing, this season's prices should not be used, as they are exceptionally high, owing to the large number of plants lost last season from the wet summer. As an illustration, I had last season a bed of Hinz's White, 105 feet long and 15 feet wide from which I cut for over a month from 8,000 to 10,000 blooms per week, which consigned to a commission dealer averaged me 40 cents per 100. This season my returns are from \$2 to \$3 per 100. Hence the prices of this exceptional season would not be a fair basis. A. M. H.



Chrysanthemums for Easter.

Chrysanthemums at Easter are a novelty easily obtained and we believe from our own experience would find a ready sale. The manner in which the plants were treated to secure this end was as follows: Young stock from 2-inch pots were set out the first of May and kept growing vigorously, due attention being given to pinching to make them stocky; by the first of August the plants were cut back one half of their growth, lifted and potted in 5 and 6-inch pots, the pots being plunged to the rims in soil or ashes. The plants now made a strong growth and were well set with buds; as soon as the buds were the size of a pea, water was withheld in order to blight the buds and give the plants a short resting season; as soon as this was done a strong growth started from the roots, this was cut off as fast as it appeared, the object being to keep all the strength in the old stem. After the buds are blighted water may be given occasionally, but not at any time enough to start a strong growth. About ten weeks before the plants are wanted in bloom trim them up, removing all dead leaves and branches and give plenty of water, warmth and sunlight if possible; we however, grew quite a fine crop of blooms from plants under a bench where they only received the sun in the afternoon, but they were much longer coming into bloom. The varieties we used for this purpose were Timbale De Argent, Moonlight, Golden Prince, Cullingfordii, Golden Dragon and Pink Perfection.

Chicago, Ill.

R. C. BANCROFT.

New York Notes and Comments.

Lent does not seem to have been so quiet this year as formerly; while the flower trade fell off considerably during the first two weeks of this period it looked up again afterward, and the last two weeks before Easter averaged good prices for the time of year.

Bay Ridge, Long Island, enjoys a particular reputation for Easter stuff, several growers there being specialists in this line. A familiar name in connection with the Easter trade is that of James Dean, who has made this his specialty for years. This year has been exceptionally trying in the trade, and many find themselves belated, in consequence of the dark wet weather, but Mr. Dean is on time as usual. Ten days before Easter his stuff was so well advanced that it was ready for hardening off. One house contained about 5,000 lilies, both longiflorum and Harrisii. These had been forced gradually, without rushing, and at the time mentioned were standing in a house with every light raised, and doors open. Naturally, they would stand being knocked about in a way that would completely spoil softer grown stuff. Under these circumstances Harrisii was as thick, firm and waxy as longiflorum, with a decided advantage in the size of flowers. Mr. Dean's experience is that the Bermuda lily is fully as substantial and durable as the other, if well grown—that is to say, brought on gradually, and then hardened in a cool and airy place.

A quantity of hydrangeas were being hardened in the same way as the lilies. Otaka far outnumbered Thos. Hogg, though a few of the latter are always liked for the white flowers. However, the superior size of Otaka still makes it the more popular. These were almost all plants in their first season, which makes the most salable size. Last year Mr. Dean had the finest lot of large specimen hydrangeas ever grown, but he considers these smaller plants more satisfactory for general trade use.

A house full of genista made a regular bower of yellow bloom. This has become a regular feature of the Easter trade, forming a very salable pot plant, in addition to its decorative use. Well bloomed plants in 6-inch pots are a favorite size. Some fine specimen plants were five to seven years old; they formed regular trees, covered with bloom, and would be highly effective in church work. These genistas were literally out of doors, the house being entirely open. The genistas were grown according to their natural habit, in which the long shoots of bloom are more effective than when pinched into the round head affected by European growers.

Azaleas were of course plentiful; the retail buyers now seem to prefer the natural habit of the plant, rather than the flat regularity of the European form, as it makes a better show in a room. As a rule the varieties grown vary little year after year, a lot of the older sorts seeming to have the preference, but two newer sorts considered good for trade use are Empress of Brazil and Empress of India, both pale mottled pink, semi-double.

In one house Mr. Dean had quite a space occupied by gray many-colored flowers, which he pointed out as something new to many. They proved to be ixias, which have been so little grown in this country that they will be an entire novelty to many, even among clever plantsmen. Like the freesia, they belong to the Iridaceae, and are a native of the Cape of Good Hope. They were first introduced to cultivation in 1757, and the number

of varieties known is close on thirty. The colors are white, yellow, orange, pink, red and magenta, some being one color only, some two. The flower spikes are grown on long slender stems. They last a long time, partially closing at night and opening again in the morning. A bunch of these flowers now before me has been cut six days and is not yet faded. They require exactly the same treatment as the freesia, lasting in flower about two months. Mr. Dean found them better in pots than flats. They receive a good deal of admiration from every one, the uninformed generally asking if they were not some smaller variety of gladiolus.

An entire house full of Astilbe japonica at this place presented such a uniform size that a man might go in blindfold and pick out a dozen plants at random without varying three inches in the size of plants. This uniformity of size seems to be a strong characteristic of Mr. Dean's stuff; everything runs just about even. Outside he has a remarkably fine strain of pansies, both in size and coloring; some unusually good mottled flowers, as well as solid colors. They are raised from home-grown seed. Taken all round, it would be very hard to beat the Easter stuff at this place.

J. M. Keller, also of Bay Ridge, is another who makes a specialty of Easter stuff; he also shows an abundance of fine lilies, hydrangeas and azaleas. Among the latter were a number of large plants of Comtesse de Flandres, perfect in shape and a mass of bloom; they were exceptionally fine. Another thing to be noted was a batch of big pink peonies, which were very decorative. Speaking of peonies, Mr. Keller said that the chief difficulty in forcing the crimson tenuifolia was inability to get the plants. They can only be obtained in any quantity in Holland and are high priced, nor are such roots large enough to be of much use to force.

A fine batch of rhapis were among the palms at this place, but as Mr. Keller observed, the city buyers do not want to look at palms around Easter; flowering stuff takes the lead. A good many hybrid roses in pots are sold in the retail trade; the custom of buying a pot plant of some sort for Easter seems to increase in favor. There is a decided fancy for white flowers, especially among the humbler buyers, but the taste varies a good deal in different localities. Pot bulbs seem very popular, but this has been quite a hard season for them, and a good many growers were not overburdened with good hyacinths and the like when Easter came.

EMILY LOUISE TAPLIN.

Bulbs at Second Class Freight Rates.

The official freight classification of bulbs has long been an uncertain matter with most railroads, although for three or four years past the trunk lines have classified bulbs (value less than ten cents per pound) as second class. This, however, was changed in the fall of 1889, and for the past six or eight months all bulbs and roots have paid first class freight rates. Some four months since we made a strong protest against this change, and by showing this stock to representatives of the official classification committee and presenting arguments in the case, succeeded in securing a new rate which will take effect in official classification No. 7, effective April 15, 1890, as follows:

"Bulbs in packages O. R., P. P., Second."

This will make quite a material saving to the trade, the freight paid on this class of heavy stock being a large item.

J. C. VAUGHAN.

News Notes.

DALLAS, TEXAS.—The Fort Worth Nursery, Seed & Canning Co. intend to build six new greenhouses the coming summer.

BALTIMORE.—Mr. H. Perlich, the Broadway florist and seedsman, met with a serious injury to his right foot on March 14.

FORT SCOTT, KAN.—Easter lilies better than ever before. Cut flowers sold out clean, designs were more expensive and elaborate than heretofore.

ST. PAUL.—Mr. W. C. Cook, until recently with L. L. May & Co., has accepted a position with J. W. North, St. Louis, Mo., and has removed to that city.

ST. JOSEPH, MO.—Mr. Hans Neilson, the florist, was elected alderman at large for the first ward, by the largest majority received by any of the candidates at the recent city election.

LOUISVILLE, KY.—The recent cyclone did no damage of any consequence to greenhouses here. But owing to the damage done to the water works we expect a water famine, which will be harder on the florists than the cyclone.

LOUISVILLE, KY.—Mr. Jos. Coenert will soon begin the erection of three new houses 100x15 each. The Morants will also build, the projected plans being for fourteen new houses, each 100 feet in length, all to be heated by hot water.

SAN FRANCISCO.—Miss Annie Neuberger, only daughter of H. Neuberger, died March 29. The family have the sincere sympathy of the fraternity on the coast, where Mr. Neuberger has been so long and favorably known as a leading florist and grower.

HARRISBURG, PA.—A heavy hail storm smashed considerable glass here early in the morning of April 9. L. E. McClinch took about 650 lights and others in proportion. Very little double thick glass was broken, the damage being almost entirely confined to single thick. No insurance.

CHICAGO.—Mr. Anton Then, the Larabee street florist, has had on exhibition at his store for the last few weeks a well bloomed azalea of unusual size. The plant is four and one half feet in height, twelve feet in circumference and so thickly covered with flowers that no foliage is to be seen. The plant is the single, pink flowered variety Modele, Mailander. Inshcer & Co. have started in at Morton Grove with 30,000 feet of glass, under the title of the Morton Grove Rose Co. The glass is heated by steam. Mr. Mailander is a brother of O. Mailander, of the firm of Schiller & Mailander, at Niles Center.

NEW YORK.—The New York Times of March 29, says: "Charles F. Klunder, the florist, has shaken the dust of his former successes from his feet, and, according to the President of the Klunder Company, has taken about \$4,000 of the company's money without the consent of its officers. He is said to be at present in London, his wife and children being with him. The cause of his downfall, it is said, was racing." William C. Wilson, the well-known florist and nurseryman, of Astoria, who made an assignment some time since, is reported by the daily press to have been acting so queerly of late as to be considered insane from his financial losses.

SITUATIONS, WANTS, FOR SALE.

Advertisements under this head will be inserted at the rate of 10 cents a line (seven words) each insertion. Cash must accompany order. Plant advs. not admitted under this head.

SITUATION WANTED—In commercial place by a gardener of 28. For particulars, address H. C. care American Florist, Chicago.

SITUATION WANTED—As gardener; 15 years' experience in nurseries and greenhouses. References given. Address S. M. care Am. Florist.

SITUATION WANTED—By a young Swedish florist of 7 years' experience, 3 of them in United States. Address C. A. LINDSTROM, 339 School St., Lake View, Chicago.

SITUATION WANTED—As gardener on a private place; have had 14 years' experience in all branches of the business. Recommendations if required. W. S. care American Florist, Chicago.

SITUATION WANTED—As gardener, private or commercial place; age 27; 13 years' experience; German; single; capable of taking charge of first-class greenhouses. Best of references. Address C. W. care American Florist, Chicago.

SITUATION WANTED—As gardener, plant growing, stove and greenhouse, flower, kitchen garden and landscape work. Married, no family; wife good cook. Best of references. Address F. F. gardener, Elm Grove, Waukegan Co., Wis.

SITUATION WANTED—As grower on private place; 15 years' experience. Understands the growing of plants, cut-flowers, fruit and vegetables. Single, age 26. References if desired. Address G. FARRANT, 1399 1/2 St. N. E., Washington, D. C.

SITUATION WANTED—By a single florist, German, 27 years of age, who is a first rate grower of cut flowers. Also understands the care of a private place. Will engage April 15th. Address C. Sch., 218 B St., N. W., Washington, D. C.

SITUATION WANTED—By a thorough, practical gardener and florist; commercial or private; 24 years' experience in Scotland and this country; age 16 years as head-gardener in district of first-class stonemasons. Scotch; married. Address B. G. care American Florist, Chicago.

SITUATION WANTED—By practical florist; young man; single; 6 years' experience in growing roses and all greenhouse stuff for cut flower market; shipping trade; makes and fills designs. Good references in the North and South. Address E. L. care American Florist, Chicago.

WANTED—4,000 to 5,000 ft. 4-inch greenhouse pipe. State sizes delivered in Chicago. Also 1,000 similar seedlings. Address H. H. SNEY, 1148 North Western Ave., Chicago.

WANTED—A man experienced with flowers and vegetables, competent to take charge of a first class suburban place; married; home furnished. Address with references JOHN R. & A. MEROCH, 508 Smithfield St., Pittsburgh, Pa.

WANTED—In commercial place, live, smart, middle aged, married man, as first assistant; must be proficient in growing all kinds of cut flowers; particularly roses and not afraid of work. Wages \$10.00 monthly and house if satisfactory within first year. To an experienced, industrious, sober man, steady place. Address with age, nationality and references, Box 20, care American Florist.

FOR SALE—One Hitchcock No. 1 conical boiler, in use 3 years. Price, \$45.00. Address M. R. SAUNDERS, Bradford, Ill.

FOR SALE OR TO LET—Two greenhouses 12x100 feet, well stocked, and two acres of ground adjoining; in nice Ohio town. For particulars, address L. care American Florist, Chicago.

FOR SALE—Florist business; city 30,000 inhabitants. Splendid retail trade in and out of city. Well stocked and equipped. For reasons and particulars, address OHIO, care American Florist.

FOR RENT—Greenhouse; good town, 5,000 population; good trade; size of house 19x30. Near the square. Will sell stock and rent house. Water works and electric lights. Cause for selling, illness. CHAS. P. CASKEY, Greensburg, Ind.

FOR SALE—Florist and seed store, with 5,000 feet of glass on three houses, heated with hot water, with a full and complete stock of plants; prominent location in the center of the city, five minutes from depot; and everything sold over the counter. A good trade in the way of making up decorations and funerals. Reason for selling, want to go west. For particulars, address J. W. BAHR, 38 & 40 West Scott Place, Elizabeth, N. J.

FOR SALE—A well appointed wholesale floriculturist's establishment, 32,000 sq. ft. of ground covered with glass, in a lively suburb of New York City. All cut flowers are sold on the premises to wholesale retailers, and the demand for selling is the supply. Excellent reasons given for selling. Price, \$30,000, one-third cash, balance on bond and mortgage. For particulars, address THOS. W. WEATHERED'S SONS, 46 and 48 Marion Street, New York City.

FOR SALE—A grand opportunity to any one about building greenhouses. The undersigned will sell (with or without land) their entire plant stock at great bargain, consisting of about 25,000 feet of glass, 750 feet of ventilating apparatus (Hitchings & Co.), 750 feet of electric pipe, two No. 7, one No. 8, one No. 15 and one conical boiler all in first-class order, and made by Hitchings & Co. Houses only built but a short time. For further particulars apply to J. BROS., P. O. Box 212, South Orange, N. J.

FOR SALE—Two greenhouses, 5,000 feet of glass, fifty miles of New York City, with good stock of plants; an established and paying business. A bargain, for \$2,500. On east terms. Address J. J. McNEIL, N. J. care American Florist, Chicago.

FOR SALE—On account of bad health, I will sell my frame house, greenhouse full of bedding plants, trees, shrubs, with a five year lease. A great opportunity for an active landscape gardener, florist. The stand alone is worth money, being located in the very best part of the city of St. Louis, Mo. Address 4325 Westminister Place, St. Louis, Mo.

FOR SALE—The leading florists business in Topeka, Kan., the Capital and largest city of the State. Demand constantly in excess of supply. Population double that of St. Marys, Pa. Business cultured, and one of the finest cities in the West. Large shipping trade. Most widely advertised and best known florists business in the State. Business flourishing, and can be indefinitely developed by push and energy. Best of reasons for selling. Can be had at a bargain. For cash. Correspondence solicited. Address PAUL M. PIERSON & Co., Topeka, Kansas.

TO LET.

For a number of years, a most desirable florist and nursery establishment on Long Island, N. Y., being an old stand and with low rates of land, private railroad stations, to all the Brooklyn ferries and bridge. The place consists of about 3 acres of very good soil, well stocked with young trees, shrubs, vines, etc. There are about 6,000 feet of glass and a number of cold frames, etc., and a very good and suitable place for growing plants. In the proximity of all the principal cemeteries on Long Island, a good business is done in bouquets and funeral flowers. Only a good, competent gardener need apply. Poor health is the reason. For further particulars apply to H. J. HENRY, Brooklyn, N. Y.

East New York Station, E. Brooklyn, N. Y.

SITUATION WANTED, By a Florist; married; 28 years old; German; 10 years' experience. JOHN WOJTSCHKE, 162 W. 19th St., CHICAGO.

Public Sale of a valuable FLORIST BUSINESS, at CATONSVILLE, MD.

3 miles from the limits of Baltimore City. Business established 22 years. The undersigned wishing to retire from business, will sell at Public Auction,

ON TUESDAY, MAY 20th, 1890, At 10 o'clock A. M.

His valuable Florist business, in Catonsville, Md., including dwelling house, barn, greenhouses, plants, etc. The greenhouses contain between 5,000 and 6,000 feet of glass, are well stocked with plants, perfect system of heating, Hitchings & Co. boiler, about 1,300 ft. of 3-in. pipe, 3 wells of water, basins a tract of land with a frontage of 50 ft. and a depth of 14 ft., with privilege of purchasing more; within 1 minute's walk of steam or horse railway. Abundance of small fruit and shrubbery on property. Will sell stock with the property, or separately.

ANDREW BASSLER, CATONSVILLE, MD.

100,000 ROSES 100,000

We have doubled our facilities for growing Roses of all sizes, and will be glad to price your lists whenever and whatever you may need. Three acres under glass, under glass, plants, and most select collection in every department. Send for Wholesale and Retail Descriptive Catalogue. Address N. N. & NEUNER, LOUISVILLE, KY.

ROSES. We are now taking orders for delivery after May 15, on the following orders. AM. BEAUTY, LA FRANCE, PERLE, NIPHETOS, SOUV. D'OR, AMI.

From now until then we will continue to fill orders on same varieties from 2 1/2-in. pots, same as heretofore. Correspondence solicited. Address GERMOND & COSGROVE, Box 69, SPARKILL, Rockland Co., N. Y.

ROSES. A very large stock of young Roses of the leading bedding and forcing varieties. Also large stock of same in 5 and 6-inch pots.

The best and newest of CHRYSANTHEMUMS. CARNATIONS and single greenhouse stocks. Trade list mailed on application.

JACOB SCHULZ, Louisville, Ky.

The New Rose CLIMBING NIPHETOS, READY APRIL 1st. Price, \$1 each; \$10 per doz.

Any one having a space for a climbing rose should have it. Also fine healthy stock of Perles, Niphotos, Mermets, Brides, Gonfiers and Bous. Prices on application.

WALTER BROS., 42 W. Main Street, ROCHESTER, N. Y.

THE AMERICAN FLORIST

Subscription \$1.00 a year. To Europe, \$1.50.

Advertisements, 10 Cents a Line, Agate;
Inch, \$1.40; Column, \$14.00.
Cash with Order.

No Special Position Guaranteed.

Discounts, 3 months, 5 per cent; 6 months, 10 per cent; 12 months, 20 per cent.

No reduction made for large space.

The Advertising Department of the AMERICAN FLORIST is for Florists, Seedsmen, and dealers in wares pertaining to those lines ONLY. Please to remember it.

Orders for less than one-half inch space not accepted.

☞ Advertisements for May 1st issue must REACH US by noon, April 25. Address

THE AMERICAN FLORIST CO., Chicago.

MR. TH. ECKARDT, Govanstown, Md., sends us a communication regarding the nomenclature of coniferous plants which he describes as in great confusion and suggests that these be added as a division for the consideration of the committee on nomenclature. It occurs to us that it would be unkind to unload any more work on to that committee and believe that we had better wait until further work has been done upon the divisions of plants which are more largely handled by florists, before increasing the numerical strength of the committee. Mr. Eckardt calls attention to the "Handbuch der Coniferen-Benennung," edited by L. Beissner and published by Ludwig Moller, Erfurt, Germany, as a great help, as it contains the list of names adopted by the Congress of growers and lovers of coniferous plants at Dresden, May 12, 1887.

CARNATION FRED CREIGHTON is the name of a new carnation of which fifty specimen blooms are sent us by Mr. Geo. Creighton, New Hamburg, N. Y., the introducer. The flowers are pink incolor, in the way of Grace Wilder, of good size, deeply fringed, very fragrant, with perfect calyx and on stems of generous length. The flowers sent are nearly all that could be desired in a first class pink carnation and if the habit and constitution prove also first class, it will be a very valuable addition to our list of pink varieties.

OUR REPORTS of the Easter trade of 1890 show the usual gratifying increase over that of previous years, as will be noted by a study of the reports. *Lilium Harrisii* is steadily growing in favor while the calla seems to be losing ground to some extent. The use of blooming plants at Easter time is still decidedly on the increase, while loose flowers are called for to the almost entire exclusion of any formal arrangements.

FROM the numerous letters upon the subject we print in another column there can be little doubt that *Primula obconica* is poisonous to many. This is much to be regretted as the plant has proved to be extremely useful, both as a pot plant and in supplying cut flowers. It will be really too bad if we are obliged to banish it from our greenhouses. But this will certainly have to be done if it is unsafe for all to handle.

THE MAN with a secret is still with us. His "secret" is a preparation which is a "sure cure" for the violet disease, and he is willing to divorce himself from it for the modest sum of \$1,000. And still violet growers do not seem to be falling over each other in frantic efforts to get to him first. It would seem as though the market for "secrets" was in a depressed condition.

"SOUTHERN FLORICULTURE, a guide to the successful cultivation of flowering and ornamental plants in the climate of the southern states," is the title of a neatly printed and bound book of 312 pages received from the author, Mr. Jas. Morton, Clarksville, Tenn. Its tone is eminently practical and it will undoubtedly prove of very considerable value to lovers of flowers in the south.

LILIAM HARRISII.—Mr. F. R. Pierson, Tarrytown, N. Y., sends us a photo of one of his new iron houses, 20x140, showing an Easter crop of *Lilium Harrisii*. There is a magnificent show of bloom. Mr. Pierson writes that the house contained about 5,000 pots and the crop of flowers exceeded 20,000.

SEVERAL additional replies to Mr. Ralph's query as to length of time steam boilers may be safely left without attention have been received, but the subject was so thoroughly covered in last issue that it is hardly necessary to give them space.

LONGEVITY OF FERN SPORES.—A correspondent of the *Gardeners' Chronicle* states that fern spores which had been gathered and kept dry for six years have retained their vitality.

OUR NEW TRADE DIRECTORY is now ready. It gives a complete and accurate list of the florists, nurserymen and seedsmen of the U. S. and Canada. Price \$2.

CALLA WITH THREE SPATHES.—The Park Nursery Co., Pasadena, Cal., send us a photograph of a calla with three spathes, each full usual size.

FIELD MICE.—A French publication states that carbolic acid or a small quantity of camphor will keep field mice away.

THE AMERICAN GARDEN in its new form is a splendid specimen of typography and is a credit to American horticulture.

Historical.

The following letter of recommendation given by Henry Clay to his gardener has been sent us by the B. A. Elliott Co., Pittsburg:

"Mr. James George, the bearer hereof, has lived in my family, as a gardener, during more than a year past. He has conducted himself with great propriety, shown himself a skilful and scientific gardener, and has interested my family very much in his welfare and prosperity. I should be very happy to retain him in my service, but the times are such as to render it inconvenient to me to pay the wages to which, by his merits, he is justly entitled. He has my best wishes for his success in life, wherever he may go."

Ashland, 25 Nov., 1843. H. CLAY."

—The following purports to be a copy of an agreement between George Washington and his gardener, and is both interesting and amusing:

"Articles of agreement, made this 12th day of April anno Domini one thousand seven hundred and eighty-seven, by and between George Washington, Esq., of the parish of Truro, in the county of Fairfax, State of Virginia, on the one part, and Phillip Bater, gardener, on the other. Witness that the said Phillip Bater, for and in consideration of the covenants hereinafter mentioned doth promise and agree to serve the said George Washington for the term of one year as a gardener, and that he will during said time conduct himself soberly, diligently and honestly; that he will faithfully and industriously perform all and every part of his duty as

a gardener to the best of his knowledge and abilities, and that he will not at any time suffer himself to be disgraced with liquor, except on the times hereafter mentioned. In consideration of these things being well and truly performed on the part of the said Phillip Bater, the said George Washington doth agree to allow him (the said Phillip) the same kind and quantity of provisions as he has heretofore had; and likewise annually a decent suit of clothes, befitting a man in his station; to consist of a coat, vest and breeches, a working jacket and breeches of homespun besides; two white shirts; three checked do.; two linen pocket handkerchiefs; two pair linen overalls; as many pairs of shoes as are actually necessary for him; four dollars at Christmas with which he may be drunk four days and four nights; two dollars at Easter to effect the same purpose; two dollars at Whitsuntide to be drunk two days; a dram in the morning and a drink of grog at noon."

The document is signed by the two contracting parties and witnessed by George A. Washington and Tobias Lee.

—Mr. Geo. Classmann, Sing Sing, N. Y., sends us the following regarding New York in 1693, taken from Wm. L. Stone's "History of New York City":

"Every house in New Amsterdam was surrounded by a garden, sufficiently large to accommodate a horse, a cow, two pigs, fowls, a patch of cabbages and a tulip bed. Indeed, the love of flowers seems to have been inherent in the Dutch dames. While the head of the family carefully watched the growth of some ancient household tree, planted in accordance with a universal custom in New Amsterdam, directly before the doorway, the matron might have been seen with her little painted basket of seeds in her hand, going to the labors of the garden. Nor is this figurative. It was the universal custom for a Dutch lady in independent circumstances, gentle of form and manner, to sow, plant and cultivate. These fair gardeners were also good florists. Where have there ever been found choicer hyacinths and tulips than among the Hollanders?"

—We have received a copy of what was probably the first catalogue of plants for sale published in the city of Chicago. The title page reads: "Spring of 1858. Catalogue of Plants, cultivated and for sale by Edgar Sanders, Lake View, Chicago, Ill." It contains but four pages and two of these hold the list of plants. Three-fourths of the first page is devoted to verbenas, the remaining one-fourth to geraniums and fuchsias. The other page contains a list of miscellaneous plants. The long list of named verbenas shows the popularity of this plant at the time.

A Tariff on Plants.

You are probably aware that the new tariff proposes to levy a duty of 20 per cent on all plants. This is aimed against the importation of cheap nursery stock from Canada, Holland, France, etc., but will seriously affect the florists of the country in their annual importations of assorted stuff. Orchids, palms, fancy roses and many other articles for which America has to draw upon Europe will be taxed without a good cause; even lily of the valley, spiraea, iris and similar herbaceous plants will be affected. Is it not time to sound a warning through your columns to those who think they should protest with the Committee on Ways and Means against the measure?

AUGUST ROLKER & SONS.

THOS. YOUNG, JR.,
WHOLESALE FLORIST
20 West 24th Street,
NEW YORK.

LILY OF THE VALLEY,
And the Choicest ROSES for the
fall and winter season.
Mention American Florist.

W. S. ALLEN,
WHOLESALE DEALER IN CUT FLOWERS,
36 EAST 23rd STREET, NEW YORK.
ESTABLISHED 1877.
Price List sent upon application.

IV. F. SHERIDAN,
Wholesale and Commission Dealer in
CUT FLOWERS,
No. 32 W. 30TH ST., NEW YORK.
Orders to be shipped will receive prompt attention.

EDWARD C. HORAN,
WHOLESALE FLORIST,
34 WEST 29TH STREET,
The Bride, Mermet,
and Am. Beauties,
SPECIALTIES. NEW YORK.

ROSS & MILLANG,
WHOLESALE FLORISTS,
No. 1168 Broadway,
Bet. 27th & 28th Sts., NEW YORK

HAMMOND & HUNTER,
WHOLESALE DEALERS IN
CUT FLOWERS,
51 West 30th St., NEW YORK.

W. A. JURGENS,
WHOLESALE FLORIST
27 Union Square, NEW YORK.

N. F. MCCARTHY & CO.
WHOLESALE FLORISTS
AND JOBBERS IN FLORISTS' SUPPLIES,
1 Music Hall Place, BOSTON, MASS.
Also entrance from Hamilton Place
through Music Hall.
We keep a large supply of Fancies and Carna-
tions always on hand. Return telegrams sent
immediately when unable to fill orders.
AUCTION SALES OF PLANTS SPRING AND FALL
Mention American Florist.

1890
DIRECTORY.
Every Florist, Nurseryman and
Seedsmen should have one.
AMERICAN FLORIST CO., Chicago.

©Wholesale Markets.

Cut Flowers.

BOSTON, April 10.	
Roses, Tens.	\$2.00 @ \$3.00
" Perle, Sunset	4.00 @ 5.00
" Gontiers, Niphetos	3.00 @ 5.00
" Mermet, Bride	5.00 @ 8.00
" Jascs.	17.00 @ 25.00
" Wootton	6.00 @ 8.00
Valley	2.00 @ 3.00
Daffodils, Tulips	5.00 @ 6.00
Violets	50
Smilax	25
Candidum	4.00 @ 6.00
Harrisii	6.00 @ 10.00
Nicomette	1.00 @ 2.00
Pansies	50
Heath	1.00
Adiantum	1.50

PHILADELPHIA April 10.	
Roses, Am. Beauty	\$15.00 @ 25.00
" Hybrid	25.00 @ 35.00
" La France	8.00 @ 12.00
" Mermets, Brides	8.00 @ 10.00
" Jascs	8.00 @ 15.00
" Bennetts	6.00 @ 8.00
" Perles, Niphetos	4.00 @ 5.00
Carnations, long	2.00
Carnations, short	1.50
Violets, Romans	4.00
" Antiole	50 @ 75
Smilax	20.00 @ 25.00
Adiantum	1.00 @ 1.50

NEW YORK, April 10.	
Roses, Bon Silene	\$2.10 @ \$3.00
" Gontiers	4.00 @ 5.00
" Perles, Niphetos, Sunsets	5.00
" Mermets, Brides	6.00 @ 8.00
" Chins, Waterlilies	6.00 @ 8.00
" Hostes	8.00
" Bennetts	4.00 @ 6.00
" La France, Albany	25.00 @ 50.00
" Beauties	15.00 @ 20.00
" Jascs	2.00 @ 3.00
" Hybrid	20.00 @ 30.00
Smilax	20.00 @ 30.00
Carnations, long	3.00
Nicomette	5.00 @ 6.00
Tulips, narcissus	3.00
Valley	3.00
Harrisii	12.00 @ 15.00
Violets	50 @ 75
Adiantum	1.50
Lilie, per bunch	1.00

Roses in large quantities \$25 to \$35 per 1000.

CHICAGO, April 12.	
Roses, Perle, Niphetos	\$4.00 @ \$5.00
" Gontiers	4.00 @ 5.00
" Bon Silene	2.00 @ 4.00
" Mermets, La France	4.00 @ 8.00
" Brides	7.00 @ 8.00
" m. Beauties	12.50 @ 20.00
" Jascs	12.50
" Bennetts, Dukes	6.00 @ 8.00
Carnations, short	1.50
Carnations, long	2.00 @ 3.00
Calles	8.00 @ 12.00
Harrisii	12.00 @ 15.00
Candidum, long	6.00 @ 8.00
Candidum, short	3.00 @ 5.00
Smilax	2.00 @ 25.00
Violets	.75 @ 1.00
Valley	4.00
Tulips, Romans	4.00 @ 5.00
Narcissus, daffodils	3.00 @ 5.00
Dutch hyacinths	5.00 @ 8.00
Adiantum	1.25 @ 1.50

WM. J. STEWART,
Cut Flowers & Florists' Supplies
—WHOLESALE—
67 BROMFIELD ST., BOSTON, MASS.

GEO. MULLEN,
WHOLESALE FLORIST.
Florists' Supplies Always in Stock.
17 CHAPMAN PLACE,
(Off School St., near Parker House),
BOSTON, MASS.
Orders by Mail, Telegraph, Telephone or Express
promptly filled.

WELCH BROS.,
WHOLESALE FLORISTS,
165 Tremont Street, BOSTON, MASS.
We make a specialty of shipping choice Roses and
other Flowers, carefully packed, to all points in
Western and Middle States.
Return Telegrams sent immediately when it
is impossible to fill your order.

C. STRAUSS & CO.
Telephones 977 and 999.
WASHINGTON, D. C.
ROSE BUDS IN ANY QUANTITY SHIPPED
ON TELEGRAPHIC ORDERS,
Mention American Florist.

E. H. HUNT,
79 LAKE STREET, CHICAGO,
Successor to
VAUGHAN'S
CUT FLOWER DEPT.

Our stock is cut with special reference to ship-
ping trade, which comprises the greater part of
our business. We therefore claim that we are
better prepared to attend to the wants of FLOWER
BUYERS, outside of Chicago, than any house in
the West.

OPEN DAILY: { Week days till 9 P. M.
Sundays till 2 P. M.

KENNICOTT BROS.,
WHOLESALE FLORISTS,
27 Washington Street, CHICAGO.

We always have choice, Fresh Cut Flowers in sea-
son. The best packers in the trade. Orders prompt-
ly shipped. Store open until 9 P. M. Sundays un-
til 2 P. M.

WIRE WORK A SPECIALTY.
Extra designs made to order. Write for price list.
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Wholesale Florist
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FLORISTS' SUPPLIES,
116 Dearborn Street,
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I keep a full stock of
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The choicest Cut Flowers at lowest market rates
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Code when ordering by telegraph. For prices, etc.,
Address,
J. L. DILLON, BLOOMSBURG, PA.

☞ Seed Trade.

SEED TRADE ASSOCIATION.

H. W. JOHNSON, Philadelphia, president; ALBERT M. McCULLOUGH, Cincinnati, secretary and treasurer. The eighth annual meeting at Saratoga Springs, N. Y., June, 1896.

LATER reports locate Mr. A. B. Cleveland in Melbourne.

MR. ALFRED HENDERSON is somewhat improved in health, he is still at Richmond, Va.

IT IS STATED that Mr. C. N. Jordan, formerly connected with the U. S. Treasury Department, will take charge of the A. B. Cleveland Co.

MR. SIDNEY WILKINSON, for some years with Henry A. Dreer, and formerly with Michel Plant and Seed Co., died at his home in Philadelphia March 28, of typhoid fever. Mr. Wilkinson was an able seedsman and office man.

MRS. CHAS. P. BRASLAN died at Minneapolis March 26. The funeral services were held at Boston, Mass., April 2, and the interment at Mount Hope cemetery. Mr. Braslan has the sincere sympathy of the entire trade in his great loss.

A CHANGE in the duty on peas, beans and barley to 40 cents per bushel and a change on garden seeds from 20 to 30 per cent and a rate of 30 per cent placed on agricultural seeds, has been favorably reported to the U. S. Senate, and is reported as likely to pass both houses. This continued tinkering with the tariff can not be beneficial to the trade.

A "Model" Seed Catalogue.

A New England paper among many notices of seed catalogues, contributes the following which we produce for the benefit of the trade with some slight omissions of names and figures:

"We have already had a good deal to say about the seedsmen's catalogues for 1890, but to our great pleasure we have now occasion to say the best 'good word' of all. We are led to do so by the receipt of a catalogue which is at once original, readable and beautifully illustrated. This is the handsome annual of John Thomas Model, of —, —, —, a seedsman who has customers at more than — postoffices, and can certainly afford to publish the leading catalogue of the year. There are others on our table, and some others under the table, that are filled with more bombast, gas, colored plates, and indescribable nonsense concerning nine hundred and ninety-nine 'novelties' and 'new sorts.' But we find nothing of the kind in Mr. Model's. It is highly original and an ideal publication of its kind; and it is readable, which is more than can be said of the average catalogue. Indeed, we are much inclined to think that the ordinary catalogue is rarely read, and Model's, moreover, is instructive and interesting. There are 96 pages of good solid matter, and not in one single item does the seedsman 'slop over.' He has good seeds, and he tells about them in an honest, candid and straightforward manner, without any flash or pretense of any kind. * * * * *

Turning the catalogue over we find below the title, 'The Wonderful Bush Lima, the Novelty of the Season,' named and graphically pictured. The pods shown are true to nature, and the contrast between the picture of a happy youth who is bending over the bushes from which he is picking, and that of a man who stands tip-

toe on a barrel picking from a pole, is suggestive and full of truth. Opening the book we are happily surprised in missing the colored plates of exaggerated character with which some of the other catalogues are 'adorned.' On the inside covers are some very fine illustrations of vegetables in the natural colors, and all through the book the cuts are remarkably excellent. The catalogue opens with the plain and honest statement, 'I am prepared this season for the largest business ever done in Model's seeds.' The contents prove the truth of this declaration.

We have not space to include all that is worth quoting in the book; but to give an idea of the sterling ring [sterling ring is good] of the man's tone, we wish to quote the introduction entire, adding that every word that is said can be depended upon as being strictly true to the facts.

He says: 'To tell the truth I already stand on the top round of the ladder in more things than one, and I have my customers alone to thank for this grand result.' * * * * * There are no 'novelties' to lead off, and there are not so many varieties in the list as some other seedsmen give, but the list is unsurpassed in that it contains only the best of everything, all surplus and doubtful varieties left out, and nothing that is worthy omitted. The descriptions are condensed and simply tell the truth. We can not find that in any instance the same variety of seed has been offered under half a dozen different names, or that some worthless varieties are put out under new names. 'I guarantee my seeds to be just as represented,' Mr. Model says; and he means it too. There are departmental descriptions of vegetable and farm seeds, of flower seeds, of thoroughbred pigs, of poultry and of gardening tools. There is no loud trumpeting, exaggerated illustrations or other humbuggery about it. There is no blazoning of cheap prices—which being interpreted, means cheap seeds. Model's seeds are never cheap in any sense."

As Mr. Hallock says, "There are solid chunks of wisdom" in the above.

Temperature of Water for Plants.

Experiments have been carried on for many weeks under the instructions of M. J. Dybowski at the school of Grignon and at Paris, with the view of testing what is the best temperature at which water may be applied to the roots of plants grown in pots, or whether plants are in any way influenced by the same. Different batches of plants were put under exactly similar conditions, and while some were supplied with water at the same temperature as the surrounding air, others received water heated successively from 2° to 50° higher. The results of the experiments have simply been nil, with the exception of verifying that the temperature of the water makes no appreciable difference either in stove or greenhouse culture. M. Dybowski explains the results by saying that water put in contact with soil rapidly takes the same temperature as the latter, and by the time it reaches the roots of the plants it is in equilibrium with the soil at the bottom of the pot.—*Gardening World*.

Japan Lilies.

Some idea of the enormous quantity of lily bulbs that are annually grown in Japan for export may be gathered from a report given in *Semperirens*. This report states that during the months of August and September last there were

shipped from the only port of Yokohama, 722 cases for Hamburg; 5,079 cases for London; 456 cases for San Francisco; 223 cases for Singapore; 120 cases for Hong Kong; 112 cases for New York, and 61 cases for Bombay. In October one house alone sent out 419 cases of lilies. The greater part of the above consists of *Lilium auratum*. The numbers of this fine lily that are annually killed, destroyed or lost must be very great.—*Gardening World*.

GREENCASTLE, IND.—Mr. John Wilson, the superintendent of Forest Hill cemetery here, has accepted a similar position at Marion, O. Mr. Wilson has done more to improve the grounds of Forest Hill cemetery than any of his predecessors and was a faithful officer. A host of friends will regret his departure.

Stevens' Florists' Refrigerators

These are the only ones made that will keep Cut Flowers perfectly. The Reason: Because, the temperature is always even. The air is perfectly dry. They are never cold and warm, as the ice may be much or little in them. This is why they do their work perfectly. They take but little ice, and no care.

GEORGE HEINT, Esq., the leading florist of Toledo, under date of March, 1891, says: "The artist refrigerator you put in for me two (2) years ago has been in constant use summer and winter ever since. Keeps cut flowers nicely from three (3) to seven (7) days, can then be taken out and will keep as well as ever. Uses but little ice. Cost me less than four dollars (4) the hottest month. It will pay for itself easy in the stuff it will save in one season. I would not be without it for double its cost. I never lose any flowers, as they keep until sold. Resp."

They are ornamental, can set in any place. Have glass doors in front to show goods. The style and workmanship can be depended on. Circulars sent on application.

COLD STORAGE FOR BULBS, ROOTS, ETC.

B. A. STEVENS, TOLEDO, O.
The largest builder of Regular and Special Refrigerating works in the U. S.

LONG'S Floral Photographs.

These fine plates—seventy-five in number—are now offered to the Trade.

They will help you to better priced orders for designs, bouquets, etc., as they give customers an exact idea of what to expect for their money. They will educate to the making up of more stylish work.

ARTISTIC. BEAUTIFUL. PERFECT.
Write for Catalogue with full description and prices.

DAN'L B. LONG, Florist,
BUFFALO, N. Y.

A Yellow Ageratum.

10 cts. Each. \$1.00 per Dozen.

APRIL 1st DELIVERY.

Emil Glauber,
MONTCLAIR, COLORADO.

TREES	ROCHESTER COMMERCIAL NURSERIES
	Address W. S. LITTLE Rochester, N. Y.
NEW and RARE, OLD and RELIABLE. Both Fruit and Ornamental. ROSES, Vines, Clematis, Rhododendrons, etc. Two illustrated catalogues free to customers. Free Wholesale List, FREE.	

Rooted Coleus & Alternanthera Cuttings

Coleus Verschaffelt & Golden Bedder, \$1.00 per 100. Alternanthera, in the 4 leading colors, \$1.00 per 100.
JOHN B. FERUSON, Florist, E. E. Pittsburgh, Pa.

FOR SALE.

Several thousand *Ficus elastica* cuttings; also several very large *Ficus trees*, 12 to 15 feet high, with from 100 to 300 young ones growing on them.
JOHN MILLER, Box K, Glenville, O.

NEW SWEET SCENTED CHRYSANTHEMUM

"Nymphæus." A decided novelty. Form and fragrance of Pond Lily. Fine for florists' use. A no the *crème de la crème* of older varieties. Send stamp for plate of "Nymphæus" and Catalogue.

H. W. HALES, Ridgewood, N. J.

MRS. J. S. R. THOMSON offers to the trade over 150 varieties of HARDY PLANTS, BULBS, TUBERS and CLIMBERS—Native and Cultivated. Send for list.

SPARTANBURG, S. C.

Florist Bulbs and CUT FLOWERS

THE WISCONSIN FLOWER EXCHANGE, 123 Mason Street, MILWAUKEE, WIS.

CLEMATIS JACKMANNI.

Fine young plants for bedding. Also 2 year plants. Prices on application.

JABEZ JOHNSON, 919 N. Main St., Dayton, O.

VERBENAS.

PERFECTLY HEALTHY STOCK.

Per 100 Per 1000
From 3-inch pots, strong, \$1.00 \$5.00
From 2½-inch pots, thrifty, 2.50 20.00

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FOREIGN GRAPE VINES.

Large list of Varieties for Planting
Hot or Cold Graperies.

FISHER BROS. & CO., MONTVALE, MASS.

CAPE COD PINK POND LILY

For price list, Plants and Cut Flowers,
address the original cultivators,

Chipman Bros.,

SANDWICH, (Cape Cod.) MASS.

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Seed Grower and Merchant,
QUEDLINBURG, GERMANY.

(ESTABLISHED 1878.)

Will be pleased to quote special prices for garden, agricultural and flower seeds saved at his extensive grounds, when cover more than 4,000 acres.

Wholesale Catalogue free on application.

Per 100
500 Bonvardia, 2-in. pots, May 1st, \$ 2.50
500 Dracena indivisa, 3½-in. pots, 8.00
1500 Coleus Verschaffeltii, 2½-in. pots, 2.25
500 " Verschaffeltii, rooted cuttings, 1.00
Rooted Cuttings Coleus, assorted, 1.25
" Chrysanthemums, ass'd, 2.00
Mrs. A. Hardy, 2½-in. pots, 35c. each

Rooted Cuttings Verbena wanted.

W. W. GREENE, SON & SAYLES,
WATERTOWN, N. Y.

WINTER BLOOMING

AZALEAS

BEAUTIFUL SHAPED PLANTS. ALL SIZES.

GABRIEL MARC & CO.,

Queens Co. WOODSIDE, L. I., N. Y.

Kalamazoo Perfection Celery Seed.

Best Variety Grown.

Pound \$10. Ounce 75 cts. Packet 25 cts.

Celery plants ready May 1st, at \$3 per 1,000.
"Kalamazoo Celery Culture" Complete, 50 cts.
Outside plants ready June 20th. Write for prices.

C. VAN BOCHOVE & BRO.,

Kalamazoo, Mich.

Mention American Florist



Florists' Letters.

Emblems, Monograms, Etc.

These letters and designs are made of the best immortelles, wired on wood or metal frames, having holes drilled in them to insert tooth-picks, by which they are fastened to the design. Give them a trial. You will find these goods to be superior to any in the market. PAT'D AUG. 6, 1889.

NOTE—All infringers or imitators of the above letters and designs will be prosecuted to the fullest extent.

Send for Sample.
24 in. purple, per 100, \$3.00
Postage, 15 cts. per 100.

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California Bulbs, Seeds & Plants

MRS. THEODOSIA B. SHEPHERD,
Ventura, Cal.

CANNA EHEMANNI, medium, \$2.75 per 100; strong, \$4.00 per 100; \$38.00 per 1000.

" NOI TONI, strong, \$3.50 per 100.

" EMILIE L'E. CLAIRE, Croy's large flowered yellow spotted var., \$7.50 per 100.

MINA LOBATA, \$3.50 per oz.

COSMOS, mixed, ounce 65c.; pound \$6.50.

white, ounce 75c.

Send for Trade List.

FLORAL * DESIGNS.

A book which tells how to make them and shows how they look. Fifty tinted plates of approved designs, in fine shape for showing to customers in place of the bare wire designs; it "gets there" much better, and looks pretty while doing it. It is a good investment for any working florist at \$3.50, postpaid, and can be had of

J. HORACE McFARLAND,
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Any one with a cellar or stable can do it. Our pamphlet, "How to Grow Mushrooms," gives full instructions. Send for it. A trial brick of Mushroom spawn (enough to plant a space 3 ft. by 4 ft.) sent by mail, to any address for 25c. 10 lbs., by exp. for \$1.25. 50 lbs. for \$5. Our handsomely illustrated catalogue of Vegetable, Flower, and Farm seeds, and all requisites for Farm, garden, and lawn, free to all.

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DIRECTORY

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NURSEYMEN,
AND SEEDSMEN,

OF THE

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FOR 1890

NOW READY,

Price, \$2.00.

SEND IN YOUR ORDERS.

The new book is a very great advance upon the old one, as we have covered the whole country by correspondence and obtained original lists of those in the trade in every city and town in the United States and Canada. We believe that the list is now as nearly correct as it is possible to get it.

AMERICAN FLORIST CO., 54 La Salle St., CHICAGO.

Preserving Fragrance of Violets.

In answer to the query as to how best to keep the fragrance of violets, which appeared in last issue, would say: I pick the violets, bunch them, put them in pots of water and stand them in the cellar for three or four hours before shipping them. When time for sending away arrives they are packed carefully in boxes lined with wax paper. None of my customers have ever complained that the violets lost fragrance before reaching them.

CHARLES PICK.

Cedar Stakes.

I would like to ask through the AM. FLORIST what there is in cedar wood that will hurt fuchsia plants? I bought some cedar shingles, split them up for stakes and used them to stake my fuchsias. In a few days where the young wood and leaves touched the stakes they looked as though they had been burned. Has any other florist had a similar experience?

E. G.

Lilium Harrisii Bulbs

THE BERMUDA EASTER LILY.

Having made arrangements to handle the entire product of several of the largest growers of the Harrisii Lily in Bermuda, we are prepared to offer the trade at extremely low prices, the finest stock of these bulbs ever brought to the States.

Careful personal inspection of the growing crops assures us that the bulbs offered are entirely free from blight and mixture, and that they are 1st class in every respect. If in the market for these bulbs, write us stating quantity and sizes wanted, and we will quote prices by return mail. Bear in mind that on orders sent us AT ONCE the bulbs can be shipped in time to force for the CHRISTMAS HOLIDAYS if desired.

JOSEPH BRECK & SONS,
51, 52 & 53 N. Market St., BOSTON, MASS.

We are now booking orders for Fall importation of French and other bulbs.

HOLLAND* BULBS.

BEFORE PLACING YOUR ORDER
BE SURE TO WRITE TO

C. H. C. MACHEN & SONS,
Wholesale Bulb Growers,
WARMOND, HOLLAND, EUROPE.

Catalogue, which is now ready, sent on application.

Great Factory of Dyed Immortelles.
PRINCIPAL HOUSE FOR THE EXPORTATION OF DRIED FLOWERS.

The dyeing is done by a New System, which leaves the Flowers perfect, and the colors proof against sun and dampness.

Prices and Samples will be sent free on request. Seedsmen and florists who want to purchase all kinds of

**NARCISSUS and
LILIUM CANDIDUM,**

can have Catalogue on application.
(Telegram Address, ROCHE, OLLIOULES.)

ALPHONSE ROCHE,
OLLIOULES, var., FRANCE.

SYNDICATE OF GROWERS

—) OF (—

FLOWERING BULBS, OLLIOULES, VAR, FRANCE.

We have the honor to inform the trade that our bulbs which were formerly sold to buyers in our region, in part to

MESSRS. BREMOND FILS AND OTHERS,

will in future be exported to buyers direct.

The most important orders may be addressed to the Syndicate or to our Traveling Agent until after his passage across the ocean, when an agency will be established in the United States.

Very Respectfully

THE PRESIDENT,

FERDINAND FENOUILLET,

TREMENDOUS REDUCTION

IN PRICES OF

ROMAN HYACINTHS, PAPER WHITE NARCISSUS, FREE-SIAS, LILIUM CANDIDUM, AND OTHER FRENCH BULBS
For early Fall Importation.

Write for WHOLESALE IMPORT PRICES, also of German Lily of the Valley Pips, Lilium Harrisii, Tuberoses, AZALEA INDICA, PALMS, DRACAENAS, Etc., Etc.

WHOLESALE CATALOGUE OF DUTCH BULBS, ROSES, ETC., ETC., will be issued early in May.

Address

C. H. JOOSTEN,

Importer of Bulbs and Plants,

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I AM NOW RECEIVING

Lily Auratum, Rubrum, Longiflorum,
AND OTHER LILIES.

Fine stock for coming season. Also Fresh Florists' Seeds, such as, VERBENA, CENTAUREAS, CHOICE PANSY, LOBELIA, SMILAX, SWEET ALYSSUM, TORENIA, NEIREMBERGIA, VINCA, &c.

JAMES KING, Seedsman,

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WHITE ROMAN HYACINTHS

FLOWER BULBS GROWER'S SYNDICATE, at OLLIOULES, var, FRANCE.

TELEGRAPHIC ADDRESS: ROMANUS OLLIOULES.

CROP 1890.

White Roman Hyacinths, Light Pink, Dark Pink, White Italian, White of the Mountain, Single Blue, Yellow, Lilium Candidum, Narcissus Totus Albus (Paper White), Double Poman, Jonquils, Allium Neapolitanum, Ornithogalum Arabicum, Etc., Etc.

Price List for Wholesale Dealers, free on application.

Agent: C. MERTZ, 32 RUE LABAT, PARIS,

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Orchids, Palms, Ferns.

Achyranthus, 2 varieties.	Per 100	\$3 00
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" Tricolor	2 00	
" Versicolor	2 50	
" Paronychioides	3 00	
" Spectabilis Variegata		
foliage pink	3 00	
Amayllis Johnsoni, large flowering,		
bulbs 50 cts. each.		
Begonias, 40 flowering var. \$4, \$6, \$8,	25 00	
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Crotons, assorted	8 00	
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Muculata	\$5, \$6, 8 00	
Cactus, Lobster	8 00	
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Dracæna Indivisa	4 00	
Dahlias, of sorts	8 00	
Echeveria Glauca	\$3, \$5, 6 00	
" Rosea	\$6, 8 00	
" Extensia Globosa, \$12, 25 00		
Eulalia Gracillima	12 00	
" Japonica Zebrina	16 00	
Forget-me-nots, of sorts	4 00	
Euphorbia Splendens	\$4, \$6, 8 00	
Feverfew Little Gem	4 00	
Fuchsia, double and single. \$3, \$4,		
" Storm King	6 00	
" Phenomenal	8 00	
" Mrs. E. G. Hill.	8 00	
Glechoma Hederacea, var. ground ivy	8 00	
Gladiolus, of sorts, Red	1 50	
" " Named	\$3, 4 00	
" " Light	6 00	
Geraniums, assorted.	\$3, \$4, 6 00	
" Scented, of sorts. . . .	\$4, 6 00	
" Lady Washington, sorts, \$6,	8 00	
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Hibiscus, assorted.	\$4, \$6, 8 00	
Hydrangea, assorted	\$5, 16 00	
Impatiens Sultana	6 00	
Lemon Verbenas	4 00	
Lantanas, of sorts	\$4, \$6, 8 00	
Montheia Crocosmeiflora. . . .	5 00	
Oxalis, assorted	\$4, 6 00	
Perennial Phlox, of sorts	\$6, 8 00	
Nasturtium, Darkness, double red .	8 00	
Salvias, assorted	4 00	
Roses, of sorts, Teas	\$4 to 15 00	
" H. P.	\$6 to 15 00	
Pilea Arborea	\$3, 4 00	
Vincas, trailing sorts	\$4, 6 00	
Verbenas, of sorts	3 00	
Wax Plants	8 00	
Ferns, named kinds, 4-in. pots .	25 00	
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We have many varieties not mentioned here. Also Bedding Plants in great variety. Not less than three plants of a kind sent. No order filled from this list for less than \$3.00.

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AMARYLLIS AULICA PLATYPHELALA, a rare winter blooming variety for cut flowers, \$1 00 each.		
" DEFIANCE, robust grower, easy and continuous flowerer, very handsome flower, 50 cents each.	Per Doz.	Per 100.
ANPELOPSIS VEITCHII, strong 1 year.	\$1 00	\$ 6 00
ARUNDO DONAX VARIEGATA	2 00	15 00
CANNAS, New Dwarf French	3 00	20 00
CHRYSANTHEMUM, Mrs. Alpheus Hardy		10 00
" .450 varieties always in stock.		

We are short of E. H. FITLER and MRS. W. K. HARRIS, please offer us these two sorts.

MR. H. CANNELL we call one of the very best yellows for cut flowers. 20 cents.	
EDOURD AUDIGUIER. This is a remarkable variety little known. EARLY, rich velvet purple violet. Fine for cut flower. 20 cents.	
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HARDY PHLOX, 100 best varieties. Our selection. 10 cents.	
NEW ROSE CLOTILDE SOUPERT. \$15 00 per 100	

V. H. HALLOCK & SON,
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9—GREAT PLANT SPECIALTIES.—9

VIOLETS. Swanley dbl. white, Marie Louise, Neapolitan. \$10 PER 1000.	PASSIFLORA CONSTANCE ELLIOTT and CERULEA. \$50 per 1000.
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GERANIUMS. In double and single, Novelty and standards, from 2½ and 3-inch pots. \$30 per 1000.	ROSES. Fine Varieties and well grown. \$40 per 1000.
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H. W. BUCKBEE'S
FOREST CITY GREENHOUSES
ROCKFORD, ILL.

A NOVELTY.

One of the most valuable **HARDY PERENNIALS** of recent introduction.

THERMOPSIS CAROLINIANA.

Plants 3 to 5 feet in height, flowering in June and July, bearing strong, upright racemes of lemon yellow flowers, very showy. Blooms second year from seed.

I OFFER FRESH SEEDS OF THE ABOVE AT \$1.00 PER PACKET.

WM. J. STEWART,
67 Bromfield Street, Boston, Mass.
Mention American Florist.

The "PLANET JR." SEED DRILLS WHEEL HOES HORSE HOES

The "PLANET JR." No. 2 GARDEN DRILL, is beyond question the best; sows the most difficult seeds; opens, covers, rolls down and marks the next row with the greatest regularity. The COMBINED DRILL and HOE, &c. The greatest favorite ever produced. Perfection as a Seed Drill, or as a Flow, Hoe, Garden Rake, Cultivator or Marking. Saves labor and seed and soon saves cost. The DOUBLE WHEEL HOE. A money maker for farmers and gardeners. Works both sides of a row at once. Plows to or from, opens, throws, covers, cultivates, hoes, rakes and has lost guards. The SINGLE WHEEL HOE is a treasure. Bents the double in some crops; is lighter. Has a Large Flow, two Long Hoes, two Rakes, three Cultivator Teeth, and a Leaf Guard. The FIRE-FLY SINGLE WHEEL HOE. Equals the best, except has no rakes nor leaf guard. The FIRE-FLY GARDEN PLOW. Worth its price yearly in a garden 20x40 feet. The GRASS EDGER. The newest, neatest, cheapest and best machine known for edging paths and flower beds. The 1890 HORSE HOE. The finest tool and most costly to make that we have ever offered. Yet the result justifies our care, as every one who sees the tool will admit. The first grand improvement is our new patent Lever Expander, one all farmers admire and which they will pay \$25.00 for, to put on old machines. The next feature is our patent Handle Shifter, enabling one to walk to one side of his work, worth \$3.00 a day for some crops. Yet we ask but a small additional price for both these fine features. Why not send for full descriptive catalogue of these and all our other S. L. ALLEN & CO. Patentees and Sole Manufacturers. useful improvements? Free to all. 1107 Market St. PHILADELPHIA, PA.

HYDRANGEA OTAKSA, 3 in. pots, \$5 per 100; \$40 per 1000.	
GRACE WILDER, healthy stock at \$3 per 100.	

GERANIUMS:	Per 100
Gen. W. S. Hancock, 2½-in. pots,	\$1 00
Mme. Thibaut, 2½-inch pots, -	4 00
H. W. Longfellow, 2½-inch pots, -	4 00
Gen. Grant, 2½-inch pots, -	3 00

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NORTH CAMBRIDGE, MASS.

Association Flora, Boskoop, Holland.
NOW ON HAND IN NEW YORK:

25,000 Dwarf budded Roses in sorts.
3,000 Rhododendrons in sorts.
3,000 Azalea Mollis and Pontica in sorts.
3,000 Clematis, extra strong plants.
Trees, Shrubs, Evergreens, Conifers, Paeonias and other herbaceous plants.
PLANTS FOR FORCING AND DECORATING.
Address **P. OUWERKERK,**
212 Fulton St., NEW YORK CITY.
Catalogue on application.

Indianapolis.

The fourth annual chrysanthemum show by the Society of Indiana Florists will be held in this city November 11-15. An advance sheet of premiums will be sent out this month.

The membership of the local club is growing. At the last monthly meeting a paper on greenhouse construction was read by John Baker, assistant florist at the Deaf and Dumb Institution.

Bernie Fohl added a house 125x30 for growing roses; Anthony Wiegand is adding a house 150x14 for spring plants; Alfred Lahud a house 60x20 for plants.

Natural gas has been a terror to decorative plants this winter; in some dwelling houses, besides being very dry, the temperature was kept up to an unbearable degree.

The winter season's trade altogether did not come up to the year before. Society people were very quiet, and in addition a great many leaders were transferred to Washington and foreign cities. A good spring trade is expected, however, with a good Easter trade to start with.

John Hartje, an enterprising young florist, has bought property and will build houses to grow specialties for the wholesale trade. W. B.

GEO. THOMPSON & SONS,

Special Low Price List for Florists.

ROSES—	Per 100
Cath. Mermet, Bougere, Allie Sisley, M. Le Guillot, Conquette de Lyoo, Comtesse de La Barthe, Le Elegante, Lamarque, Marie Van Houtte.....	\$1.00
Our selection of varieties.....	\$7.00
Magna Charta, Mme. Planter, Conquette des Blanches, Mme. Alfred de Rougemont.....	4.00
Paris, Florie Prelim.....	4.00
Allananda Henderson and Neriothia.....	3.00
Ipomoea Nectandra (Moon Flower), \$20 per 1000.....	2.50
Lesari and Mortoni.....	3.00
Hibiscus of sorts.....	\$20 per 1000
Bouvardia A. Neuner.....	2.50
Geraniums, good variety.....	3.00
Jasminum Revolutum.....	2.00
Begonia Sanguinea.....	3.00
Hydrangea Phos. Hogg.....	8.00
Japanica tricolor.....	1.00
Violets Mme. Millet.....	4.00
" Swaley White.....	\$17 per 1000
Dracinas, Grenata R. Pl.....	2.50
Geratils.....	2.50
Viburnum Opulus, Snowball.....	2.50
Perennial Phlox in variety.....	2.50
Passiflora Corchoria Elliot.....	2.50
Chrysanthemums, Nympha.....	4.00
" New varieties.....	4.00
" Best old vars.....	\$18 per 1000
Lemon Verbena.....	3.00
Geranium.....	\$5 per doz.

The above stock is in first-class condition. List and Catalogues on application. Address

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LOUISVILLE, KY.

DAHLIAS.

50 EXTRA FINE VARIETIES.

Dry Roots.....	Per 100 Per 1000
Green Plants.....	5.00 40.00
Coleus.....	3.00 25.00
Alternanthera.....	3.00 25.00
Hydrangea, T. Hogg and Okaka.....	8.00 60.00
Hibiscus, fine plants.....	10.00 80.00
New French Canas.....	15.00 120.00
Canas, mixed.....	3.00 25.00
Geraniums, fine collection, 3-in. pots.....	3.00 25.00
Carnations.....	\$5.00, \$5.00, \$5.00 and 20.00
Callas.....	4.00

H. W. WILLIAMS & SONS,
BATAVIA, ILL.

FLORIST STOCK

	Per 100
Abutilons, of sorts.....	3.00
Alternanthera, 4 sorts.....	per 1000 \$5.00
Alyssum, double and variegated.....	3.00
Canas, the sorts.....	3.00
Chrysanthemums, standard sorts.....	4.00
Dahlias, dry roots and green plants.....	6.00
Fuchsia, extra fine sorts.....	\$1.00 to 8.00
Geraniums, double and single.....	\$3.00 to 6.00
Heliotropes, sorts.....	\$4.00 to 6.00
Hibiscus, sorts.....	\$1.00 to 4.00
Jonquills, sorts.....	4.00
Moon Flowers.....	4.00
Passies, large plant.....	per 100 \$5.00
Roses Texas, including best forcing vars., 2 1/2 in. 3-in. pots.....	3.00
77 Trade list and catalogue free	6.00

HANS NIELSEN, St. Joseph, Mo.

APRIL 29.

APRIL 29.

ORCHID SALE
AT CHICAGO.

MESSRS. ELISON, FLERSHEIM & CO.,

of 84 and 86 Randolph Street, Chicago, Ill.,

Have received instructions from F. MAU, Orchid Importer and Grower, Weehawken, N. J., for a very extensive sale of Orchids, which will take place on **APRIL 29, AT 2:00 P. M.** precisely. The sale will include a specially selected assortment of rare, choice and free blooming kinds, which are specially recommended to the trade. Parties who do not receive the mailed catalogue, will kindly apply for it to the above address.

Mr. Mau himself will be at the sale, and will be very glad to give full information of all particulars.

DAMLIAS, CANNAS, PALMS, ETC.

	Per 100
Large field-grown roots in 60 choice varieties of large-flowered, Pompon, Single and Cactus, whole roots.....	per 100, \$8.00
Pot grown plants ready May 1, \$5 per 100, \$45.00	
GLADIOLI, in splendid mixture, mostly light colors.....	per 100, \$1.75, 15.00
TUBEROSE Pearl, first-class.....	15.00
" Double, first-class.....	15.00
AMPELOPSIS VEITCHII, strong 2 yr. plants, from 5-inch pots, 3 to 4 feet.....	\$10.00
HYDRANGEA paniculata grandiflora, strong thrifty stock, 3 to 3 1/2 feet.....	12.00
2 1/2 to 3 feet, \$10.00 to 2 feet.....	8.00
CANNA Ehemanni, strong.....	10.00
CANNAS in variety, fine assortment.....	5.00
CHRYSANTHEMUM Maximum, one of the finest new hardy herbaceous plants, blooming from July until frost, fine for cut flower or pot culture.....	8.00

PALMS—	Per 100
—Latania Borbonica, 2 1/2 in. pots.....	7.00
—Latania Bor. 3-in. pots, 10 to 12-in. high.....	10.00
—Latania Bor. 4-in. pots, 15 to 18-in. high.....	30.00
—Latania Borbonica, 24-in., 3 to 4 leaves, per dozen, \$15.00.....	
—Chameroops Excelsa, 3-in. pots, 10 to 12 inches high.....	12.00
—Chameroops Excelsa, 2 1/2 in. pots.....	7.00
CARNATIONS E. G. Hill, Columbia, Grace Wilder, Hinz's White, J. J. Harrison, Portia and Silver Spray.....	4.00
Starlight.....	6.00
Tidal Wave.....	8.00
COREOPSIS Lanceolata.....	7.00
CALADIUM Esculentum, 7 to 9-in. in circum.....	8.00
" 6 to 7-in. in circum.....	6.00
" 5 to 6-in. in circum.....	3.50
ENGLISH IVY, 2 1/2 to 4 feet high.....	8.00
AMPELOPSIS VEITCHII, 2 to 3 feet.....	8.00

Full stock of New and Standard varieties Roses, Begonias, Coleus, Geraniums, Chrysanthemums, Bedding Plants, Etc.

Standard Pears in large supply. Finest assortment of Fruit and Ornamental Trees, Small Fruits, Shrubs, Etc. SEND FOR TRADE LIST.

THE STORRS & HARRISON CO., Painesville, Lake Co., Ohio.

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1017 Broadway,
KANSAS CITY, MO.

Abutilon Golden Fleece, 4-in.....	per dozen, \$2.00
Primula Obconica, 3 1/2 inch.....	per 100, \$6.00
" 4-inch.....	10.00
Impatiens Sultana, fine plants, 2-in.....	3.00
" 4-inch.....	10.00
Cineraria Hybrida, finest strain, 4-in.....	8.00
Coleus in variety, 2-inch.....	2.00
Carnation Hinz's White, 2 1/2 in.....	3.00
" Portia, 2 1/2 inch.....	3.00
Chrysanthemums in variety, 2-inch.....	2.00
Moon Vines, 2-inch.....	4.00
Centaurea Gymnocarpa, 2 inch.....	2.00
Vincas, trailing sorts, 2-inch.....	3.00
Ageratum, 2 best sorts, 2-inch.....	2.50

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New crop ready June 1.

A. L. OGILVIE,

Box 128, LOS ANGELES, CALIFORNIA.

Henderson's Mammoth Verbenas.

Rooted Cuttings, named varieties, separate colors, \$1.00 per 100.

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HARDY RHODODENDRONS.

About 1000 best named hardiest kinds Rhododendrons, budded, 1 1/2 to 2 ft. high.

Also about 75 best named budded hardy AZALEAS. For prices apply to

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ALL COLORS.

AQUATICS FOR THE AQUARIUM, Etc.
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(Nymphaea Odorata.)

\$5.00 per 100. 50 at 100 Rates.

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Seedlings of Tuberous Begonias.

ONCE TRANSPLANTED.

A fine strain of singles, large flowers, all shades of red mixed.

By Mail, postpaid, \$3.00 per 100. By Express, in lots of 200, \$2 50, \$2 4 per 1000. Per 100

Hydrangeas, Hortensis and Thomas Hogg.

from 2 inch pots \$ 2 50

Geraniums, best market sorts, strong . . . 2 50

Verbenas, half Mammoth, all colors mixed, 2 50

Rooted Cuttings 1 00

Can supply scarlets separate.

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Insures Greenhouses against damage by hail. For full information, address

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PALMS, DRACÆNAS, FERNS, PANDANUS, ETC.,
 for immediate use, and a still larger stock growing on for Spring sales, as well as of
 all the choicest BEDDING and CUT FLOWER PLANTS, especially ROSES. Every-
 thing in excellent condition.

Inspection of my stock at the Nation's beautiful Capital cordially invited.

WRITE FOR PRICE LIST.

ANACOSTIA P. O., WASHINGTON, D. C.

WE HAVE A LARGE STOCK

DAHLIAS. AMPELOPSIS.
GLADIOLUS. MOON VINE.
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And a general assortment of Greenhouse and Bedding Plants and Summer flowering
 Bulbs. Write for Wholesale Price List for Spring, 1890.

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GRAPE 850,000 VINES

Headquarters of the MOYER, the Earliest, Best, Reliable Red Grape. Also SMALL FRUITS, TREES, etc.
 8 sample vines mailed for 15 cents. Illust. descriptive Price List free. **LEWIS ROESCH, FREDONIA, N. Y.**

VIOLETS.
MARIE LOUISE and QUEEN VICTORIA

First class stock in 2½-inch pots. Send for sample and prices.

JOHN P. TONNER,

Montclair, Ill.

Mention American Florist.

Cheap Cash List.

GOOD STOCK. Per 100

Ampelopsis Veitchii, 1 year, strong \$ 2.00

" dormant, 3-in. pot plants, 3.00

Geraniums, strong plants, 2½-in. pots, all of the

best market sorts 2.00

Daisies, Double White, and Longfellow, pink . . . 1.50

Asters Victoria White, transplanted 1.00

Grape Vines, Ex. pre. Slate, 2 year 10.00

" " 1 year, strong 6.00

Pansies, fine strain, twice transplanted 1.00, 85

E. FRYER, Delaware, O.

Quite Different.

"I have a stock of the Star Spangled Banner Plant, whose glorious star-shaped flowers are red in the morning, white at noon and blue in the evening, and —"

"Sir, this is the office of the Horticultural Atomizer. No such plant as you describe can possibly exist. It is a humbug sir."

"I should like to advertise it in your periodical; five inches double column space, top of page, next to reading matter. Am willing to pay extra for that position."

"Glad to see you sir. Take a seat. We go right to the people you want to reach. How many times do you want the adv. to appear?"

O. P. C.

2-inch Pipe.

In the March 15 issue I see an article on the use of 2-inch pipe written by R. S. B., of Kansas City, Mo., in answer to which I wish to say that 2-inch pipe will do the same work as 4-inch pipe if attended to as required.

It is true that 2-inch will heat quicker and get cold quicker than 4-inch, but bear in mind that 2-inch are only one half the size of 4-inch, and my opinion is that wrought iron pipe does not retain heat as long as cast iron pipe. It is not true that 2-inch pipes are worthless. I have used 2-inch myself and can say they are not worthless. I think a 2-inch cast iron pipe would be a good thing to take the place of 2-inch wrought iron pipes. My opinion is that a 2-inch cast iron pipe with a flange union like a collar would be a useful pipe, and it seems to me could be cast very easily. Such would give a great advantage over the old style pipe and beginners would buy them rather than 4-inch, to my notion. The collar should be made the same as a flange union, with four holes for bolts; a washer or packing ring should be used between every joint. They can be easily put together by any one and no expensive tools will be required. I would like to hear from other florists on this subject.

Indianapolis, Ind. CHAS. DEIMER.

ROOTED CUTTINGS.

	Per 100
Coleus in the leading varieties, including Verschaffeltii and Golden Bedder, per 1000 \$10.00, \$1.25	
Verbenas, Mammoth, last batch, " 10.00	
" Gen. collection, " 8.00,	
Calceolarias, fine collection, " 2.00	
Chrysanthemums, fine collection, " 2.40	
Achyranthus Emersoni and four other sorts, " 1.50	
Ageratum in variety, " 1.50	
Fuchsias, 20 leading varieties, " 2.00	
Gazania Splendens and Variegata, " 2.00	
Heliotrope, in variety, " 2.00	
Salvia Splendens, " 2.00	

PLANTS FROM POTS.

Verbenas, in bud and bloom, ready last of April, Mammoth set stocky plants, " 4.00	
" Gen. collection, stocky plants, " 25,	
ROSES—Perle, Mermet, Brides, Papa Gontier, Niphetos, la France, Cook, Sunset, Siffrano, S. D. Am, Bon Silene and Mme. de Watteville, strong plants, 2 1/2-inch pots, " \$45.00 per 1000,	
Tea Roses or Everblooming sorts \$58.00 per 1000,	
Ampelopsis Veitchii, strong plants, " 8.00	
Achyranthus Emersoni and four other sorts, " 4.00	
Feverfew Double White, 2 1/2-inch, " 4.00	
Gazania Splendens and Variegata, " 4.00	
GERANIUMS—Double Grant, Sunburst, " 4.00	
Perfection, and best double and single sorts, also Ivy Leading, " 4.00	
Silver Mt. of Snow, and cut leaved including Rose, " 5.00	
Lemon Verbenas, 1 year, strong, dormant, " 5.00	
Pelargoniums, best collection, strong plants, " 8.00	
Vincas, Variegata & Splendens, 1 yr. strong, " 20.00	
Latest Trade List furnished free.	

WOOD BROTHERS,

(Successors to I. C. WOOD & BRO.,) FISHKILL, N. Y.

	Per 100
Single Primroses, 3 1/2-inch, " \$5.00	
Smilax, 2-inch, " 2.00	
Centauria Gymnocarpa, 2 1/2-inch, " 4.00	
Feverfew Double White, 2 1/2-inch, " 4.00	
Ivy German, 2-inch, " 2.00	
Pansies, " 2.50	
Hollyhock, white, yellow, salmon, red, pink, " 4.00	
Primula Obconica, 4-inch pots, " \$2.00 per doz.	
Plants with order, J. W. WAGNER, Beaver Dam, Wis.	

Surplus Stock.

	Per 100
Abutilon in variety, " \$4.00	
Alyssum in variety, " 3.00	
Ageratum in variety, " 3.00	
Anthemis coronarium, " 4.00	
Antennaria in variety, " 3.00	
Coleus in great variety, " \$25.00 per 1000	
Carnation De Gray, " 3.00	
Canna, French Hybrid, 2 1/2-inch, " 3.00	
Cineraria Hybrida, 2 1/2-inch, " 3.00	
Caladium Esculentum, 1 1/2 to 2 1/2-inch, " 5.00	
Cabbias, dry roots, " 10.00	
Danishes English, " 3.00	
Feverfew Little Gem, " 4.00	
Begonia Rex in fine variety, " \$5.00 and	
" Storm King and other varieties, " 3.00	
Geraniums, 2 1/2-inch in variety, " 1.00	
PANSIES—Fall sowing from seed, 1000 \$8	
" Fall sowing, large transplanted plants, " per 100 \$18.00	
Primula Obconica, 3 1/2-inch, " 2.00	
Pelargoniums in variety, " 3.00	
Richardia Alba Maculata, " \$3.00 to 10.00	
Tuberose Double, " 1.50	
Violets, 3 varieties, " 3.00	
Vinec Major Variegata, very strong vines, " 16.00	
Verbenas, mixed Mammoth, from seed, 1000 \$25	

I. N. KRAMER & SON,
Marion, Iowa.

APRIL OFFERS.

	Per 100
Primula Obconica, " \$4.00	
Geranium, Sun, Slown, Single Grant, 32, Star, " 4.00	
G. Dawn, " 4.00	
Chrysanthemum Nymphaea, fragrant, " 4.00	
Carnations, Florence, scarlet, Daisy White, " 6.00	
Salvia Splendens compacta, early bloomer, " 6.00	
Bouvardia A. Neuner, 3-inch pots, " 6.00	
" Great Cleveland, extra strong, " 8.00	
Alyssum Double Tom Thumb, " 3.00	
Centauria Gymnocarpa, 2-inch pots, " 2.00	
Alternanthera, 2 varieties, " 2.00	
Heliotrope Mrs. Burgess, best for florists, " 4.00	
Verbena, in fine named sorts, " 3.00	
Feverfew Little Gem, " 3.00	
Stock, cut and come again, best white, " 2.50	
Coleus Firebrand, best red blooming, " 3.00	
Begonia Metallica and Sutton's White, " 4.00	
Cobea Scandens, very strong plants, " 6.00	
Everettia, " 4.00	
Fuchsias, Storm King, Phenomenal, Imp. V, " 4.00	
" Victor and others, " 4.00	
Pansies, wintered plants, fine strain, medium size, in good mixture, " \$5.00 per 1000.	

Above prices are for plants by express, if by mail postage must be added. Not less than five plants of a kind, and no order filled for less than \$2.00. No trade list. Retail catalogue with discounts upon application.

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PANSIES.

	Per 100
Blooming plants, ready for immediate sale, " \$4.00	
Medium plants, budded for bloom, " 2.50	
Wintered over seedlings, large for seedlings, " 1.50	

ROSES.

	Per 100
HEALTHY STOCK, 2 1/2-inch pots.	
Perles, Mermets, Bennetts, Niphetos, Brides, " 4.00	

VERBENAS.

	Per 100
Good varieties, 2 1/2-inch, pots, " 3.00	
Rooted cuttings, " 1.00	

CHRYSANTHEMUMS.

	Per 100
Good leading varieties for show or cut flowers, " 3.00	
Our selection, from 2 1/2-inch pots, " 3.00	
Rooted cuttings, " 2.00	
Cuttings, " 1.50	

RHODODENDRONS.

	Per 100
Native variety, white, very fine plants, " 35c. each.	
Special price for large quantities.	

G. R. CLARK & CO.,

SCRANTON, PA.

DAHLIAS.

IMPORTATION OF 1889.

	Per 100
From Deegen's Celebrated Collection, 50 varieties in Dwarf, Pompon and Show, from 2 1/2-inch pots, nice plants, " \$1.50 per dozen; \$10 per 100.	

THEO. BOCK, Hamilton, Ohio.

RUSSIAN MULBERRY.

	Per 100
100,000 Nursery grown, straight and nice, 1 1/2 to 3 1/2 ft. at only \$1.00 per 1000.	
CATALPA SPECIOSA, from 6 inches to 10 ft., very low by the 100 or 1000.	

WHITE ASH AND WHITE MAPLE, 30,000 one year, fine.

60,000 CONCORD GRAPE VINES, one year, good, \$12.00 per 1000. Address

A. ELLIS, Wichita, Kan.

How does this Read?

Roses, fine healthy stock, no disease, Perles producing hardly 1% of malformed buds.

	Per 100
1000 Perle des Jardins, 2 1/2-inch, " \$4.00	
300 Niphetos, 2 1/2-inch " - " 4.00	

FINE STOCK OF FERNS AS FOLLOWS:

	Per 100
Adiantum Cuneatum Roenbeckii, the most useful fern for florists use grown, 3-inch, \$1 per doz., " - \$8.00	
5-inch, \$2.50 per doz., " - 18.00	
Asplenium Belangeri, 6-in., each, 50c.	
" Viviparum, 4-in., " 15c.	
Neprolepis exaltata, 3-inch, " 8c.	
Gymnogramma sulph., 5-in., " 10c.	
Asparagus plumosus nanus, fine stock, 5-inch, " each, 50c.	
6-inch, " each, 75c.	
Asparagus tenuissimus, 5-inch, " 15.00	
Marantas in variety, 4, 5 and 6-inch, 20c., 30c., 50c. each	
Brabea filamentosa, 3-inch, " 5.00	
Cape Jessamine, 4, 5 and 6-inch, 15c., 25c. and 50c. each.	
Begonia Metallica, 2 1/2-inch, " - 5.00	
New white fringed Hydrangea, 2 1/2-inch, 6.00	

ALL OF ABOVE ARE FINE STOCK AND WELL GROWN.

J. HARRY HARVEY,

RICHMOND, VA.

Two Hardy Perennials,
FOR FLORISTS' CUT FLOWERS.

COREOPSIS LANCEOLATA—Golden yellow, long stems; desirable for cutting. Blooms until frost, if flowers are cut as they mature.

LYSIMACHIA CLETHROIDES—Long recurved spikes of white flowers nearly all summer. Good for floral designs. Beautiful autumn foliage.

Each, 15c.; Doz. \$1.00; 100, \$6.00.

J. T. TEMPLE,

North Brady Street and Temple Lane,
DAVENPORT, IOWA.

BOUVARDIA.

Bouvardia Davisonii, 20,000 young plants out of cutting boxes, propagated from root cuttings, clean and healthy, \$1.25 per 100; \$10 per 1000.

Pansies—One of the finest strains in the country, of my own selection, \$3.50 per 100; \$30 per 1000.

Fuchsias, Mrs. E. G. Hill, 2 1/2-inch pots, 75 cts. per doz., \$5.00 per 100.

Myosotis Eliza Sanrobert, fine strong plants, \$3.00 per 100; \$25 per 1000.

Nepeta Glechoma variegata, strong, 3-inch pots, \$3.50 per 100.

Variegated Vincas, fine, strong, bushy plants, 4-inch pots, \$5.00 per 100.

Salvia Splendens, strong, 2 1/2-inch pots, \$3.00 per 100.

Alternanthera Amens spectabilis, Paronychiodes major, Anrea nana, fine rooted cuttings, \$1.00 per 100; \$10 per 1000.

Coleus Golden Bedder and Verschaffeltii, strong rooted cuttings, \$1.00 per 100; \$8.00 per 1000.

Delphinium formosum out of boxes, twice transplanted, \$3.00 per 100; \$25 per 1000.

Full satisfaction guaranteed. Write for general list of seasonable plants.

WM. J. EISELE, Torrissdale, Phila., Pa.

ROOTED COLEUS CUTTINGS.

COLDEN BEDDER, VESCHAFFELTII, FIRE-BRAND, HERO, GLORY OF AUTUMN,

AND J. GOODE,

75c. per 100; \$6.00 per 1000.

Alternanthera aurea nana, rooted, \$5 per 1000

Cash with order.

S. B. FIELD,

ROSELLE, N. J.

Order Now

A Copy of our New

TREE DIRECTORY

PRICE, \$2.00.

AMERICAN FLORIST CO., 54 La Salle St., Chicago.

FLORISTS' HAIL ASSOCIATION OF AMERICA.

Frequent inquiries have been made as to who are members of the Florists' Hail Association. We give their names below, and the readers of the FLORIST are at liberty to select any name or names and ask them if they are not satisfied with the results attained. Those marked with a * have been paid for loss by hail.

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John G. Heintz, Terre Haute, Ind.
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Some Decided Novelties.

The following, taken from the *Newburgh (N. Y.) News*, brings to light some remarkable novelties and we hasten to place them before the trade.

The florists of this city are now having a very brisk trade in the way of flowers for Easter—both wholesale and retail dealers—and their places of business are now daily filled with the choicest cut flowers, including hydrangas in variety, Easter lilies (lilium hersii), etc.

The real Easter lily is "St. Joseph's," a short white flower, bell-shaped. There are also the calla lily (Lily Ethopica), the Astelia Japonica (Encelis Amazonica), lily of the valley, etc. Following these come the Kondechelle specuoe, smilax and Eugen Vellie. Spectabilis, a showy purple flower. Among the roses on sale are the Cornelia Cocks, a white rose high-priced; the Generale Jackimotte, and the pink and high-priced La France Merit, the souvenir de Mel-nasson, a light plush and sweet scented rose, very scarce; the Peulneyron, a large pink rose; the Annie Dishack, another fine pink; the Baron Roehschild, a flesh-colored rose, shading to white; the Bon solent, a bronze pink; the Pearl of the Gardens, a yellow rose; and the well known Marechal Neil. Then there is the Peppie Gunther, a beautiful red rose. This rose came out in New York about eight years ago, and William Francis Bennett, a Philadelphia, bought the whole lot of the dealer for \$5,000, and propagated them, selling them to florists for \$1 each, when in turn the florists cultivated them, and now they can be purchased for them 25 cents to 30 cents each, and they are in great demand. Another rose, called "Poppy Graham's Pride," has a changeable color, the petals sometimes having a bluish hue, changing to grass green at full bloom.

We are rejoiced to know that Mr. Bennett is at present located in Philadelphia; he always did enjoy good health at Den-nison Bros., and we presume he is now located there "permanently for the present," as one of our esteemed acquaintances would put it. But it does seem strange that such a valuable new rose as "Peppie Gunther" never came to our notice, though introduced eight years ago. We tremble to think that we might never have known of its existence had it not been for the above named paper. We commend the new rose "Poppy Graham's Pride" to the attention of the more modest and retiring of our catalogue men. The unique and effective description should give it an extensive sale among lovers of startling floral novelties.

STANDARD POTS

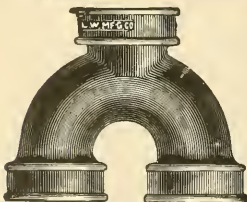
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Supplement to THE AMERICAN FLORIST.

Vol. V.

CHICAGO, APRIL 15, 1890.

No. 113.

Increase of Duty on Plants.

The McKinley Bill which was to be favorably reported by the Ways and Means Committee in the House of Representatives April 14 increases, as we are credibly informed, the duty on much florists' stock, among which we may mention roses, lily of the valley, palms, spirea, orchids, azaleas, etc. It is believed that the favorable report of this committee will go far towards securing its adoption and those who desire to protest against this increase should take prompt action. Presuming that many of our readers may wish to do this we attach a blank herewith. Every florist who wishes to defeat the bill should tear it off, fill out with the name of his own Congressman, and mail it to him with or without a personal letter.

 **TEAR OFF THE LOWER PART.**

TO THE HON. _____ M. C.

_____ Congressional District,

State of _____,

We would respectfully protest against the passage of that part of the bill now pending before the House of Representatives and known as the "**McKinley Bill**," which provides for an increase of duty on roses, palms, orchids, spirea, lily of the valley, azaleas, or any other stock for florists not commonly produced in this country in competition with foreign countries, and many of which can not be grown to advantage here owing to climatic and other conditions.

SIGNED _____

ADDRESS _____

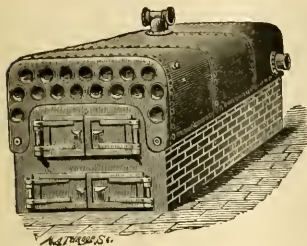
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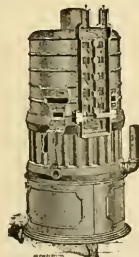
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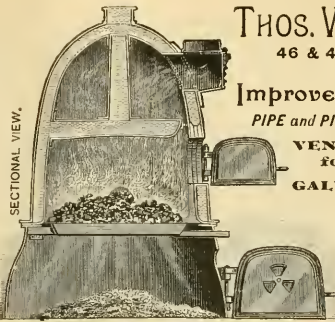
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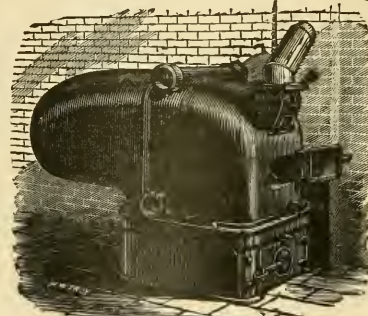
Index to Advertisers.

Advertising Rates, etc.	438	Krick, W. C.	441
Aldine Printing Wks.	450	Krombach Charles	449
Allen S. L. & Co.	450	Larkin Isaac	449
Allen, W. B.	439	La Roche & Stahl	438
Association Florists	445	Little W. S.	450
Bassler Andrew	439	Lockland Lumber Co.	451
Bayersdorfer H. & Co.	439	Long Daniel B.	440
Bear Samuel Sr.	443	Lonsdale Edwin	447
Berger, H. H. & Co.	443	McCarthy N. F. & Co.	439
Biano A.	449	McFarland J. Horace	451
Bock Theo.	448	McMahon Frank	451
Bock Wm A.	445	Machen C. H. & Sons	452
Brackenkridgen & Co.	445	Marc Gabriel & Co.	441
Brauer & Richter	447	Mathews, W.	451
Breck Jos & Sons	442	Mey John N.	457
Brown H. S. & Son	445	Mette Henry	447
Buckbee H. W.	445	Micho & Planchard Co.	447
Burrow J. O.	441	Millar, Geo. W.	457
Carmody J. D.	452	Miller John	440
Chandler Alfred	445	Mullen Bros.	452
Chipman Bros.	441	Nanz & Neuner	456
Clark G. R. & Co.	450	National Hot Water	451
Crelighton George	444	Hester Co.	451
De Veer J. A.	445	Nielsen Hans	451
Devine, Peter	451	Ogilvie A. I.	451
DeWitt Bros.	445	Pennock Class E.	459
Dier, John L. & Co.	451	Pierce Butler & Pierce	451
Dillon, J. L.	439	Plenty Josephus	451
Dingee & Conard Co.	457	Prober Bros Floral Co.	446
Dreger, H. A.	445	Quaker City Mch. Wks	450
Eisen W. J.	445	Reed & Keller	450
Ekelund Juan	447	Renard Jos	444
Ellison Fiersheim & Co.	445	Roche Alphonse	442
Ellis A.	448	Roech Lewi	445
Ellis Bros.	448	Rolker, A. & Sons	445
Ferguson John B.	449	Ross & Millang	438
Field S. B.	448	Sander F. & Co.	447
Fisher Bros & Co.	441	Saunders M. R.	446
Fisk Chas H.	451	Schmidt Edward	451
Fresco O. W.	452	Schulz Jacob	456
Fryer E.	445	Scollay, John A.	451
Gardiner Jnn & Co.	441	Seegars Bros	445
Germond & Cosgrove	436	Sheldine W. R.	444
Glauber Emil	440	Shepherd Mrs T. B.	441
Greene W. W. Son & Sayles	441	Sheridan W. F.	451
Grey Benj.	444	Siebracht & Wadley	447
Grimith, Jas	450	Siple Dornie & Co.	451
Grimith, N. S.	444	Situations, Wants	458
Hall Association	447	Smith David	452
Hales, H. W.	441	Smith & Smith	449
Hallcock V. H. & Son	445	Super J. J.	444
Halsey Wm R.	446	Souper & Notting	457
Hammond, Benj.	444	Starr Chas T.	450
Hammond W. S. & Co.	444	Stedens N.	446
Hammond & Hunter	459	Stevens B. A.	440
Hancock George	444	Stewart, Wm. J.	439
Harvey J. H.	453	Storrs & Harrison Co.	445
Heint Joseph	443	Strauss C. & Co.	439
Henderson John Co.	457	Studer N.	457
Herendeen Mfg. Co.	452	Swayne Wm.	444
Herr, Albert M.	444	Syndicate of Growers	445
Hillinger Bros.	450	Taylor John H.	457
Hippard E.	450	Temple J. T.	452
Hitchings & Co.	452	Thompson Mrs J. S. H.	441
Hooker, H. M.	450	Thompson Geo & Son	448
Horan, Edw C.	459	Tonner John P.	447
Hudson John M.	459	Van Bochove G. & Brodell	445
Hulsebosch A.	443	Van der Schoot & Son	445
Hunt E. H.	459	Vaughan, J. C.	457
Hughes E. G.	449	Warner Jos.	446
Ives, J. H.	450	Waterer H. M.	446
Jewett Z. R.	451	Watson B. M.	446
Johnson Jabez	441	Weathered, Thos. W.	452
Johnson & Stokes	440	Whilldin Pottery Co.	451
Jousten C. H.	452	Williams L. W. & Son	446
John Floral Co.	457	Wisconsin Flower Ex. 441	
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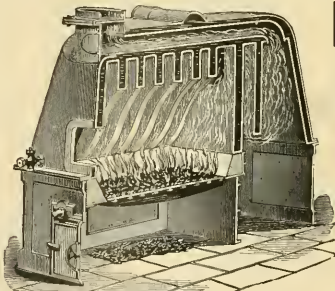
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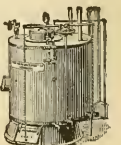
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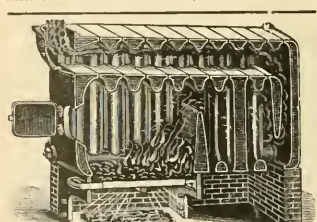
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Vol. V.

CHICAGO AND NEW YORK, MAY 1, 1890.

No. 114.

THE AMERICAN FLORIST

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J. M. JORDAN, St. Louis, Mo., president; W. H. NORTON, Boston, Mass., vice president; Wm. STEWART, 67 Bromfield St., Boston, Mass., secretary; M. A. HUNT, Terre Haute, Ind., treasurer. The sixth annual meeting at Boston, Mass., August, 19, 20, 21, 22, 1890.

CONTENTS.

Preparations for Boston meeting	453
New York Notes and Comments	453
Tuberous begonias	454
Hardy plants—May flowers	454
Group of single tuberous begonias (illus.)	455
Buying new varieties	456
Group of double tuberous begonias (illus.)	457
Detroit spring exhibition	458
Boston	458
Washington (with diagram of table decoration)	459
New York	459
The "ostrich plume" chrysanthemum	460
Californian plant novelties	460
Clematis paniculata	460
Is Primula obconica poisonous (with fig.)	461
Steam vs. hot water	461
Steam heating	462
Obituary—Dr. George Thurber	462
News notes	463
Coming exhibitions	464
Chicago	464
Catalogues received	465
Insects and diseases	466
Duty on bulbs—a test case	466
Montreal	468
Spirea japonica aurea reticulata	470
Aratus in imbrication	470
Fire insurance—extra assessment plan	471
Duty on wheat sheaves	472
Heating	474
Killing greenfly	474
The Florists Clubs	475
Puget Sound	478

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OUR NEW trade directory is now ready.
Price \$2. Order a copy now.

WE ARE under obligations to many growers for records of bloom cut and will soon be able to present some valuable statistics regarding the average number of blooms cut from certain varieties of roses and carnations.

OUR SUBSCRIPTION list continues to show a slow but steady increase. We have now practically every florist on the American continent on our list and a surprisingly large number of subscribers in foreign countries. The FLORIST now goes to every civilized country on the globe.

S. A. F.

Preparations for the Boston Meeting.

THE TRADE EXHIBIT.

The customary trade exhibit in connection with the annual meeting of the S. A. F. will be held in lower Horticultural Hall; in accordance with a vote of the executive committee of the National Society, a uniform charge of twenty-fiv cents per square foot for floor and wall space occupied will be made to each exhibitor, regardless of the nature of the goods shown. The allotment of space and all other details connected with this exhibition have been turned to a committee of the Gardeners' and Florists' Club of Boston. This committee is now prepared to receive applications for space. Applicants will please state fully the nature of proposed exhibits, with number of square feet required, and whether floor or wall space is preferred. Owing to the limited room available, the committee reserves the right to restrict or refuse space at their discretion. All applications should be in the hands of the committee not later than July 15. The different exhibits will then be classified and space allotted. The committee is composed of the following gentlemen: Wm. H. Elliott, Chairman; N. F. McCarthy, Secretary; J. J. Cunningham, E. A. Wood, John Walsh, Samuel Neil. Address all communications to N. F. McCarthy, 1 Music Hall Place, Boston Mass.

HOTEL ACCOMMODATIONS.

Boston being on the direct line of much of the summer travel, August is the busiest month of the year with most of the hotels. Reduced rates are, therefore, out of the question, and delegates will do well to make early applications for accommodations required. An additional uncertainty in this connection is caused by the meeting of the G. A. R., which takes place in Boston but one week ahead of that of the florists. It is probable that many attendants at the G. A. R. meeting will remain in the city during the following week, and the committees having in charge the matter of hotel accommodations for the S. A. F. has found it a difficult matter to get any encouragement from many of the larger hotels. The Quincy House promises to take care of from 500 to 700 delegates. The American agrees to take 300. All the others, regardless of size or location, make a limit of from 25 to 50, a few going as high as 75. The following list is arranged according to distance from the convention hall, beginning with the nearest. Where two rates are given, the lower rate generally applies to rooms occupied by two persons.

The committee on hotel accommodations is composed of the following gentlemen: Wm. J. Stewart, 67 Bromfield street, Boston; M. H. Norton, Berkeley street,

Boston; P. Welch, 165 Tremont street, Boston; J. Frank Curtis, Newtonville, Mass.; J. J. Cunningham, Readville, Mass. Applications sent to either of the above addresses will receive prompt attention.

List of Hotels.

NORTHWARD FROM HORTICULTURAL HALL.

Name and location.	Distance from Hort. per sq.	Rate
Tremont House, Headquarters.		
Tremont St.	opposite	\$3.00-5.00
Parker House, School St.	1 sqr.	1.00-3.00
St. Nicholas Hotel, Province St.	1/2 "	.75-1.00
Boston Tavern (gents only), Washington St.	1 "	1.00-2.00
Sherman House, Court Sq. are	1 1/2 "	.75-2.00
Young's Hotel, Washington St. & Court Sq.	2 "	1.00-3.00
Crawford House, Sco. lay Square	3 "	1.00-2.00
Quincy House, Brattle St.	3 "	2.50-3.00
American House, Hanover St.	4 "	2.50
Revere House, Bowdoin Square	1/2 mile	.75-1.50

SOUTHWARD FROM HORT. HALL.

Adams House, Washington St.	4 sqrs.	3.00
Hotel Reynolds, Washington St.	4 "	3.00
Vieh's Hotel, Tremont St.	5 "	1.00-2.00
United States Hotel, Beach St.	1/2 mile	1.00
Hotel Brunswick, Boylston St.	1 1/2 "	3.50-5.00
Hotel Vendome, Commonwealth Ave.	1 1/2 "	3.50-5.00
* American plan. † European plan.		

HORTICULTURAL EXHIBITION.

The Massachusetts Horticultural Society will hold during the week of the convention a grand horticultural exhibition. This will be arranged in a mammoth tent on Boston Common, a short distance from Horticultural Hall. In many respects this will be the most notable exhibition of the kind ever made in America. Competition for the premiums is open to all, and contributions of specimen plants or rare flowers from all parts of the world will be gladly received and properly cared for. Schedules of premiums and all information regarding this exhibition may be obtained of Robert Manning, Secretary, Horticultural Hall, Boston, Mass., or P. Norton, Chairman Committee of Arrangements, Horticultural Hall, Boston, Mass.

New York Notes and Comments.

The impression that Papa Gontier makes the greatest success in a cool and airy situation is endorsed fully by Rudolph Asmus, who expresses a good deal of admiration for this rose. In fact, he intends to discard all his Bon Silene in its favor. Grown in an ordinary sloping house he finds that the best Papas come on the top bench, where they get a full allowance of cool air, while having heat enough to advance rapidly. In a really

cool house, while the flowers are fine the crops are hardly rapid enough for most commercial growers; for this reason it seems as if the top bench in an ordinary house was best, where they have cool air and light. In most cases *Papas* average a degree higher in price than *Bons*.

A good many of Mr. Asmus' *Perles* will go out to make way for *Mme. Hoste*, which is likely to be very largely grown next season; it appears to be generally liked.

Mr. Asmus has been very successful with his *Beauties* this year, they show plenty of healthy wood and consequently fine flowers. Like every one else, he finds that this rose makes tremendous shoots, without any immediate promise of bloom. Believing, however, with the poet, that "all things come to him who will but wait," he ties the long shoot down, and then brings it up to a reasonable height; if it continues to grow he ties it down again before it shows flower, but he invariably gets a flower on these long shoots, and it may be remarked that they are always the finest and most perfect blooms. Some of these tied-down shoots noted were at least twelve feet long, and of course there were new shoots breaking all along it. But the invariable excellence of the flowers on the long shoots was noticeable; it appears to be the natural growth of the plant.

Cusin is a rose always well grown at this place, Mr. Asmus calls it his favorite, and it must be generally liked, for in spite of predictions to the contrary it fully holds its place year after year in public favor. It has the advantage of lasting better than any other rose of its type, in spite of its apparent delicacy. As seen here, it always does best on side benches, where it gets sun on the soil, but comparatively little overhead. It is a rose which is apt to burn more or less without a good deal of care.

Noticing a space given to the ordinary scented geranium, it was said that there is now quite a steady demand for this old thing. It is cut in large sprays, not just loose leaves as they were shipped years ago, when its chief use was as backing in designs. Now that loose flowers are so much called for, the sprays of geranium come in very well to lay under the flowers, and the fresh odor is liked by most people.

Carnations are not much grown at this place, but like everyone else, Mr. Asmus was disappointed with these plants during the past winter. Success in carnations has been a novelty in this district during this season.

Alegatrice is complained of as being too late; Brilliant, declared by many to be identical with *Portia*, is far more satisfactory.

Mr. Asmus was potting a lot of *pæonies* (*P. officinalis*) just imported, which were to be grown on for next season's forcing. This variety is regarded as excellent for forcing.

Among commercial places in the upper end of New York City, David Clarke's establishment is decidedly interesting. His business chiefly takes the form of decorating; consequently his stuff is usually of that type—palms, ferns, and other showy plants. In a lot of decorating plants going some distance out of the city were a number of variegated *acubas*, which make a handsome contrast with their firm and glossy leaves, and will bear any amount of knocking around. They are found very useful in sub-tropical bedding, and the smaller plants are used by the city trade in filling vases and window boxes.

Aralia Sieboldii variegata is another handsome decorative plant which will bear rough usage; the habit is extremely graceful and distinct. Another thing used by Mr. Clarke for its foliage is the European bird cherry (*Cerasus Padus*, is it?), which has firm, glossy, dark green leaves, very like a laurel. All these leaves make an admirable variation with palms and ferns. The bay tree is another fine looking thing similarly used, and it makes such a handsome head of glossy leaves. *Araucaria imbricata*, noted in a cool house, would attract attention by its spikiness chiefly, but it has a beauty of its own, which makes it show off among other plants. It is a great pity that *Araucaria excelsa* is so easily injured; if it would only bear plenty of knocking about, it would be a grand thing for decorating.

Mr. Clarke was growing a nice batch of *Ardisia crenulata* from seed; this is found very salable as a pot plant at Christmas and around that season. Even a small plant is showy when well berried.

Pandanus Veitchii, as seen here, recalls the fact that this is decidedly more valuable than *utilis* for general use; it is more showy, and stands better. *Pandanus utilis* has a trick of burning or getting rusty just when needed at its best; of course, it has its uses, but the other variety is more serviceable to the general decorator.

Among ferns, while *Adiantum cuneatum* must be considered a leading sort, *A. decurum* is much liked commercially; it is exceedingly handsome in a medium-sized plant. *A. gracillimum* is charming when just right, but it is so apt to turn rusty and distressed looking just as soon as it is well grown, that it is of little use commercially. For decorators and retailers the harder ferns must be grown.

For trade purposes, *Primula obconica* has been found best when two or more plants are potted in a clump, so as to make a larger mass. The greater quantity of flowers and foliage takes off the weedy look so often complained of in this plant.

EMILY LOUISE TAPLIN.

Tuberous Begonias.

As supplemental to what we have already said regarding these begonias we have pleasure in presenting in this issue excellent engravings of two groups of flowers, one showing typical single and the other typical double forms. The illustrations show the blooms two-thirds natural size. The colors are shades of white, red and yellow.

Hardy Plants.

MAY FLOWERS.

Many of the plants mentioned last month will continue in bloom into this month. Among these are *Arabis alba*, *doronicums*, *epimediums*, *lungwort*, *diantra*, *anemones*, *candytuft* and *primroses*. And several species of *narcissus*, for instance *poeticus*, and *jonquils* and Dutch *hyacinths* and *gay tulips* will enliven the garden for some time to come.

TRITELEIA UNIFLORA is a little bulbous plant from Buenos Ayres with bluish white star flowers. It is quite hardy here, blooms gayly in April and May, multiplies considerably and is an exceedingly pretty little plant to look at, but when bruised it smells like garlic. It is a good deal grown for greenhouse decoration, but it is never so pretty as when in clumps or belts out of doors.

PHLOX SUBULATA, the moss pink re-

ferred to last month, is now in its fullest glory, a solid sod of bloom. If you shear off the flowers when they begin to fade the leaves beneath them will not rot off as they sometimes are apt to do, but this clipping is not imperative. *Phlox setacea* is just the same thing. Last winter I lifted a few sods of it and potted off the little rooted pieces into 2½-inch pots which were then put out in a cold frame. They are nice rooted plants now, and many have been planted out and every one has grown well. Besides the *P. amena* and *P. reptans* also now in bloom, *P. Stellaria* will soon be a solid cushion of lavender blue flowers. It is very easily raised from cuttings.

TIARELLA CORDIFOLIA or False Miterwort as we commonly call it, is a little wild plant that spreads considerably in leaf mold beds in rocky woods, and in May bears a great profusion of upright racemes of fleecy white flowers. Easily cultivated and well worth growing in faintly shaded places.

POLEMONIUM REPTANS or creeping Jacob's ladder, is another little native plant well worth growing in a slightly shaded place. The flowers are bluish, profuse, but not showy. Other taller and later blooming species are *P. ceruleum* and *confertum*. They may be raised from seed or division.

DODECATHEON, or Shooting Star, comes into bloom about the third week in May and when grown in generous bunches is a very attractive plant. It hardly pays to raise it from seed, better get good plants to begin with, they grow abundantly wild in some parts of the country.

IRISES.—The forms of *I. pumila* enter May well represented, and are soon accompanied by the dwarf *I. cristata*, and larger growers as *I. Florentina*, *tenax*, *Bohemica*, *obliensis*, and a host of the German *irises* which, in many cases, are quite pretty. The *I. Sibirica* will also prevail wherever it gets a footing.

ARNEBIA ECHINOIDEA, the prophet flower, from Northern Persia, is one of the choicest and most interesting of garden plants. It belongs to the borage family, comes into bloom about the middle of May, and has primrose yellow flowers with five black crimson spots on their face, and these spots which are so vivid when the flowers open gradually disappear till in a few days no trace of them is left. Although this plant has been in cultivation for a good many years it is still high priced and scarce in cultivation, and seldom included in price lists in this country.

TROLLIUS or globe flower.—These are globe-flowered yellow ranunculuses or buttercups, not uncommon in old gardens, and quite pretty, and given moist, good soil and protection from wind and bright sunshine, they grow strongly and bloom beautifully in May. *Trollius Europeanus* has globular lemon yellow flowers; *T. Asiaticus*, from Siberia, has large golden yellow, rather flat blossoms. *T. napellifolius* from the Carpathian Mountains has deep yellow globose flowers, and is one of the finest of all, and *T. sinensis*, from China and Japan, has deep yellow half open flowers that come into bloom later than the others. *Trollius laxus* is our native globe flower. It blooms earlier than the others, but is barely as showy. Although they are propagated by seed or division of the root, their increase in quantity is somewhat slow.

AJUGA (Bugle flower).—While the different kinds of *ajuga* can not be regarded



GROUP OF TUBEROUS BEGONIAS; SINGLE FLOWERED FORMS. TWO-THIRDS NATURAL SIZE.

as showy flowering plants, they come into bloom in May and last into June, and are capital plants to let run wild in rockwork, also for edgings in gardens. I use *A. reptans* largely for edgings, and lift, divide and reset it every year. There

are crimson-purple and variegated leaved forms of it. *A. alpina* is a very dwarf pretty species, of which there are blue and white flowered varieties. And *A. genevensis* is the finest of all; it is really a fine blue flowering border plant.

SOLOMAN'S SEAL (*Polygonatum*).—The common one, *P. multiflorum*, is worth growing, especially in lightly shaded places, and another good kind is the Japanese *macranthum* which has unusually large flowers. They will also

grow well in the open border. And they are good plants for forcing, but whether or not as forced plants they would be attractive enough for the florists' customers, to pay, can only be known by trial.

COLUMBINES.—May and June are the season of columbines, but *Aquilegia truncata*, red, and *A. chrysantha*, yellow, extend the season a month or two longer. We have lots of double flowering and hybrid forms, but in my estimation all are inferior to the true species. Among the best to get are *Aquilegia Siberica*, the earliest; *A. formosa*, red; *A. carneia*, blue and white, long spurred; *A. Olympica*, blue and white, short spurred, and *A. chrysantha*, yellow and the latest of all. And get some seed of *A. glandulosa*, it is blue and white, short spurred and a little gem but short lived, that is, it is well to keep up a fresh lot of plants every year from seed. The John Grigor nurseries, Forres, Scotland, have made a specialty of this columbine for over 30 years, and in order to keep it pure they grow no other kind. It used to be known there about as Brodie columbine, but why I never could find out. And I have failed to discover any difference between this of the reputed distinct forms of this species as raised from seed obtained elsewhere, and the plants I raised from seed got from Grigor. All of the plants of *Aquilegia longissima*, that most wonderful of all long-spurred columbines, that I raised from seed some ten years ago are now dead, and the species in the meantime so far as I can learn is lost to cultivation. Surely some one collecting in Northern Mexico will again introduce it.

DOUBLE FLOWERING ROCKETS (*Hesperis matronalis*).—We have the double white and the double purple, and both are as desirable, in their way, as are good stocks. They like good moist ground. And we should raise a fresh stock of plants from cuttings every year because the old plants are not very persistent.

DOUBLE FLOWERING CUCKOO FLLOWER (*Cardamine pratensis* fl. pl.).—The common cuckoo flower or lady's smock is a very common flower in moist or wet meadows in Europe, and the double-flowering variety, which is really a good thing, is just as easy to grow as is the single one, but it must have moist ground.

LILY OF THE VALLEY.—Every florist should grow quantities of this out of doors. It is in full bloom with us about the 20th of May. To have it in its finest condition grow it in the open ground in good moist land and mulch it with rotted manure in fall, letting the manure stay there permanently and add to it every year. The idea that lily of the valley should be grown in a shady place is erroneous, if you are looking for good flowers and lots of them. And when they get too thick in the patch dig up strips of them for forcing.

CYPRIPEDIUMS.—About the 20th of May *C. pubescens* comes into bloom and is immediately followed by *C. parviflorum* and then by *arictinum* and *candidum*, two interesting but not showy species; *C. acule* first opens about the middle of May and *C. spectabile* not till the end of the month or first of June. *Pubescens*, *parviflorum* and *spectabile* are worth growing and easily cultivated, they grow and bloom well year after year and under favorable circumstances increase in size, and the flowers are good for cutting. *Acule*, except as a frame or pot plant, seldom acts well in captivity. I have found them all to thrive in faintly shaded, good, moist ground, mulched with sphagnum moss and leaf mold mixed

together so as to preserve an open surface. Warm sunshine upon their blossoms will injure them.

HEMEROCALLIS, or DAY LILY.—The first to bloom is *H. dumortieri*, a species of neat, bunch, compact habit and bearing bronzy orange yellow flowers in May and early June. An excellent plant for forcing, also for outdoor Decoration Day flowers. But the flowers do not rise high above the foliage as do those of *flava* and *Thunbergii*. About the end of May or early in June *H. flava*, clear yellow, comes into bloom, it is a vigorous growing, copious and most desirable plant. *H. minor* (graminea) blooms immediately after *flava*, and although it is a smaller plant in all its parts and less showy, its flowers, which are also yellow, are well liked for cutting.

PEONIAS.—About the 20th of May *P. tenuifolia* comes into bloom. Single or double flowered it is a gem, but it is very scarce and slow to grow to large size. It never becomes large masses as do the Chinese peonias, and one has to wait several years before he can get a good specimen out of the little morsel one generally gets when he buys a plant. The tree peonias come into bloom about the same time, so too do the old double red herbaceous peonia, and soon after it the handsome white *albiflora*. Then till well into June we have the gorgeous multitude of herbaceous peonias. And all are hardy, easily grown and long lasting.

ARMERIA (THRIFT, or SEA PINK).—I grow the common *A. vulgaris* for edgings and the *A. cephalotes* as a garden plant. Numerous names are given to the different forms. The *vulgaris* makes an extremely neat edging, it never spreads beyond bounds, and if nothing over-spreads it in summer it lives untarnished, and it blooms in May and into June. I lift, spread or tear it apart and replant it every year. The *cephalotes* is barely hardy, so it is well to winter it in a frame or have it on raised soil where no water can lodge about it. But it is a large flowering fine species. It should be increased from seed, as there is danger in breaking the clumps.

We have the Clivedon white and Clivedon yellow bedding pansies in bloom and they are very decided and pure in color and compact in growth. Grape hyacinths abound in the grassy places or borders where they have become naturalized; the European blue bells (*Scilla campanulata*) are at home under the same circumstances; and the blue quamaish (*cassasia*) is in good bloom. *Cheiranthus alpinus* is a cushion of yellow and *Erysimum rupestre* a mat of the same color. Rue anemones and wood anemones, single and double, and crown and fulgens anemones are still in fine condition. The dwarf ginseng (*Aralia trifolia*), dwarf cornel, star flowers, fringed polygala and the spreading blue (*Houstonia serpyllifolia*) are enjoying themselves in sharply shaded places. *Saponaria ocy-moides* spreads into a broad carpet of pink, and the double ragged-robin is decorating many a door yard. *Valeriana aliarifolia* is a bold plant thriving in open border or lightly shaded place and producing large heads of white flowers. *Thermopsis fabacea* displays its yellow pea flowers towards the end of the month when the beautiful feverfews, single and double, also come in.

Glen Cove, N. Y. WM. FALCONER.

Buying New Varieties.

Personal controversy between any of the correspondents of the FLORIST can be of little moment to the readers of the

paper, and is certainly of no value to its editor. Therefore, any further reference to the conflict of opinion between Mr. Dallas and the writer would be unnecessary, but that in his remarks contained in the FLORIST of April 1, there is a point of issue which should be of consequence to all who are concerned in the success of a florist's business.

It has ever been the purpose of the writer in all communications written for the FLORIST to bear in mind one fact—that it is a paper managed with the express object of helping florists as business men; and to teach the lesson that in all our operations we should be guided by business principles; gauging these operations not from the standard of personal inclination, but from that of dollars and cents. The question—"Does it pay?"—is the question that the FLORIST ever reiterates in our ears. A question that every enterprising man should always ask himself in all that he undertakes to do in the way of business transactions.

It is perfectly legitimate for any man to take exception to ideas or suggestions that are published when they do not appear to him to be in accord with the truth; but when he does so he should be careful as to his own facts before he makes his attack and be sure he is arguing from correct premises.

It was never stated by the writer that he paid \$2 for a plant of Mrs. Andrew Carnegie, and then failed to grow it. He never made any public statement as to the merits of this chrysanthemum. Strange that the thought underlying the words should be so mistaken. The argument was as follows: That no man paid \$2 per plant for this variety and made money by the transaction. That the "disseminator" made money by the sale of the plant we all acknowledge. No one ever said he did not. If a man could not do so at such a price for chrysanthemum plants he should at once yield all claim to the title of a business man.

I again repeat the statement. That no man ever paid \$2 for a chrysanthemum plant and made money by the sale of the flowers. If this statement is untrue it can easily be proven untrue. Mr. Dallas will have us infer that this has been done; if so, he must have facts in his possession which, if published, would quite refute me. Just such facts the FLORIST undoubtedly desires as contributions.

But Mr. Dallas kindly sums up my own argument for me. I have contended for no more than he grants. That the indiscriminate buying of new plants is disadvantageous to the florist who wishes to do a paying business. But the test as to the plants florists buy should be the commercial one. It is of little importance to us as florists, what merits a plant may have if we can not make it pay. The gentleman maintains that I publicly denounced the chrysanthemum in question, and that it is unfair to cry down any particular plant because we are not in a position to make money by it. All of which statement, so far as it refers to me, has no fact for its foundation. The only standard for me as a florist is the florist's standard, and only by that standard is a personal judgment passed upon varieties that meet with personal observation.

The general tendency is to sift in every class until only a few kinds are left that are considered of value to the florist as a business man. Of the numberless roses catalogued and disseminated only a few are fit for forcing. Of the numberless chrysanthemums the same rule holds good. And with florists' flowers the essential feature with most of them is



GROUP OF TUBEROUS BEGONIAS; DOUBLE FLOWERED FORMS. TWO-THIRDS NATURAL SIZE.

their capability of being forced, and this must be the standard by which commercial florists will judge a new plant when it is sent out, the rank it is likely to take as a money producer.

Mr. Dallas has been pleased to make some gratuitous assumptions concerning my enterprise and methods of conducting my business. These assumptions are of no consequence to any one but himself.

It is respectfully suggested that as he has never had an opportunity of examining these business methods it is entirely beyond his province to pass judgment upon them.

ALFRED E. WHITTLE.*

Detroit Spring Exhibition.

Fourteen thousand paid admissions on the first day, twenty-one thousand on the second day, and a total attendance of fifty-one thousand people during four days was the most striking feature of the Detroit spring exhibition. And what drew this immense concourse of people? Not flowers and plants alone, but plants, flowers, music, and last, but not least, temples, kiosks, cottages and similar structures representing the architecture of various peoples, both ancient and modern, occupied by pretty girls arrayed in the costumes of various countries and to represent mythological characters. Flowers, music and fair woman's smiles made up a combination that drew the people as no flower show alone could have done, while the fact that the net proceeds were to be donated to the city charities undoubtedly had its due effect.

The floral part of the exhibition was excellent, a decided advance upon that of last year at the same place, the plants especially showing evidence of more care in growing. It is apparent that the two previous exhibitions have spurred the Detroit florists on to greater effort, and that the effort has been followed by results.

In addition to the exhibits by the local florists, there were several displays by florists from other cities, prominent among which was the collection of orchids shown by Pitcher & Manda, Short Hills, N. J. Their display of cut blooms was superb, and would have done credit to them at any exhibition. Including plants as well as cut flowers, there were some 200 varieties among which were to be noted a rare *spatoglottis*, the white *Cattleya trianae*, a splendid form of *Laelia purpurata* with deep-colored lip, *Dendrobium macrophyllum*, *D. chrysotoxa* and other choice kinds. The collections of cypripediums, cattleyas, epidendrums, odontoglossums and oncidiums comprised nearly everything available at the season. A row of small plants of *Grevillea robusta* made an admirable background for the display of cut orchids.

Densy Zingiebel Needham, Mass., had sent a box of blooms of his famous pansies, and they were, as usual, the subject of many admiring comments. Isaac C. Rogers, Morristown, N. J., sent some specimen cosmos blooms.

Six handsome specimen ivy-leaved geraniums, shown by Andrew Ferguson, were considered worthy of special mention by the judges, no premium having been offered in the regular list.

The mantel and table decorations were nearly all good and some were of decided excellence. For best mantel decoration the Detroit Floral Co. received first for a most beautiful arrangement, mainly of ferns and other greenery; D. C. Jones took second for an arrangement similar in style; J. Breitmeyer & Sons third, and J. F. Sullivan fourth. J. Breitmeyer & Sons were first on table decorations with a center piece of hybrid roses rising from a bed of greenery, edged with *Primula obconica*, over which a colored globe shed a light which gave a peculiarly rich effect. D. C. Jones was second and Detroit Floral Co. third. Floral baby gift, J. Breitmeyer & Sons first; Bachelor's supper design, D. C. Jones first, with an accurately worked out figure of a stag's head resting on a base of loose flowers and foliage. Basket of flowers, J. Breitmeyer & Sons, first, J. F. Sullivan, second; Bridal bouquet, Detroit Floral Co. first, J. Breitmeyer & Sons second; Design of any kind except funeral, first, B. Schro-

ter, second, J. F. Sullivan; Easter design, B. Schroeter first, J. F. Sullivan second; Floral butterfly, J. Breitmeyer & Sons second; Wedding gift, J. Breitmeyer & Sons first.

In plants: First premiums were awarded to John Breitmeyer & Sons for 6 azaleas, 12 Rex begonias, 12 callas, 12 red carnations, 20 white carnations, display of ferns and lycopods, 12 heliotropes, 10 *Lilium candidum*, 4 hybrid roses, collection of hybrid roses, 3 rhododendrons, specimen *Marguerite*, specimen palm, group of decorative plants, 12 palms in 8 to 10-inch pots, 6 palms in 6 to 8-inch pots, pair palms, collection of palms; Second premiums for 12 azaleas in 6 to 8-inch pots, 12 blooming begonias, 12 *Pteris tremula*, 6 *Pteris tremula*, 12 adiantums, 6 pink hydrangeas, 3 pink hydrangeas, 6 white hydrangeas, 3 white hydrangeas, display of orchids in bloom, 10 hybrid roses, 10 spirea, 6 spirea, 20 Dutch hyacinths, 50 narcissus and jonquils, 100 tulips, specimen fern, specimen hydrangea.

Andrew Ferguson, First premiums for 12 azaleas in 6 to 8-inch pots, 6 pink hydrangeas, 3 pink hydrangeas, 10 hybrid roses in 6 to 8-inch pots; Second premiums for 12 heliotropes, collection of hybrid roses, and a special for 12 calceolarias.

Gus H. Taepke, First premiums for 12 cinerarias, 12 fuchsias, 6 fuchsias, 3 white hydrangeas, 12 ever-blooming roses, 6 ever-blooming roses; Second premiums for 6 azaleas in 6 to 8-inch pots, 12 Rex begonias, 12 red carnations, 6 named geraniums in 6 to 10-inch pots, 25 named geraniums in 6 to 10-inch pots, specimen *Luchsia*, specimen geranium.

A. Breitmeyer & Son, First premiums for 12 blooming begonias, specimen fuchsia, display fancy foliaged geraniums, 6 12-inch hanging baskets; Second premiums for 12 callas, 12 fuchsias, specimen spirea, single hanging basket, pair hanging baskets.

Detroit Floral Co., First premiums for 12 *Pteris tremula*, 6 *Pteris tremula*, specimen adiantum, 12 adiantums, 6 adiantums, pair adiantums, specimen fern, specimen hydrangea, pair 12-inch hanging baskets, best arranged lawn vase, pair lawn vases; Second premiums for display of ferns and lycopodiums, 10 *Lilium Harrisii*, 40 Dutch hyacinths, specimen *Marguerite*, 12 palms in 8 to 10-inch pots, 6 palms, pair palms, collection of palms, 6 12-inch hanging baskets, 12 named geraniums in 6 to 10-inch pots.

Holzagle & Noel, First premiums for 12 named geraniums in 6 to 10-inch pots, 6 named geraniums in 6 to 10-inch pots, 25 named geraniums in 6 to 10-inch pots, specimen geranium, 12 coleus; Second premium for display fancy foliage geraniums.

J. F. Sullivan, First premiums for 10 *Lilium Harrisii*, 10 spirea, 6 spirea, 20 Dutch hyacinths, 100 narcissus and jonquils, specimen spirea; Second premiums for 2 blooming camellias, 5 *Lilium Harrisii* specimen camellia.

B. Schroeter, First premiums for 25 cinerarias, 6 pink hydrangeas in 8-inch pots, 40 Dutch hyacinths, 50 narcissus and jonquils, 100 tulips, carpet bedding arrangement; Second premium for group of decorative plants.

F. W. Lemke, First premium for 6 white hydrangeas and special for 12 double petunias.

Chas. Warneke, First premium for 18-inch hanging basket; Second premiums for lawn vase and pair lawn vases.

Pitcher & Manda, Short Hills, N. J., First for general display of orchids in bloom.

In cut flowers J. Breitmeyer & Sons received first premiums for 6 spikes *Lilium candidum*, 50 white carnations, 12 spikes Dutch hyacinths, 50 blooms mignonette, 100 blooms pansies, general collection of roses, 12 American Beauty, 12 Bennett, 12 Bon Silene, 12 Jacq, 12 hybrid perpetuals, 12 La France, 12 Mme. Cusin, 12 M. Niel, 12 Papa Gontier, 12 Safrano, 12 Souvenir de Wootton, 50 tulips, 25 tulips, 6 *Primula obconica*. Second premiums for 50 red carnations, general display of carnations, 12 sprays *Lilium Harrisii*, 50 sprays lily of the valley, general display cut orchids, 12 Bride roses, 12 Mermet, 12 Niphotos, 12 Perle des Jardins, 12 Sunset.

J. F. Sullivan First premiums for 12 callas and 12 sprays *Lilium Harrisii*; Second premiums for 8 camellias, 12 Dutch hyacinths, 12 rose Safrano.

Holzagle & Noel First premiums for 50 red carnations, general display of carnations; Second premium for general collection of roses.

Detroit Floral Co., First premiums for 50 sprays lily of the valley; Second premiums for 100 pansies, 12 American Beauty roses, 6 American Beauty, 12 Souvenir de Wootton.

A. Breitmeyer & Son, First premiums for 12 Bride roses, 12 Mermet, 12 Niphotos, 12 Perle, 12 Sunset; Second premiums for 12 Bon Silene, 12 Papa Gontier.

Pitcher & Manda, First premium for general display of cut orchids.

B. Schroeter, Second premium for 50 blooms mignonette.

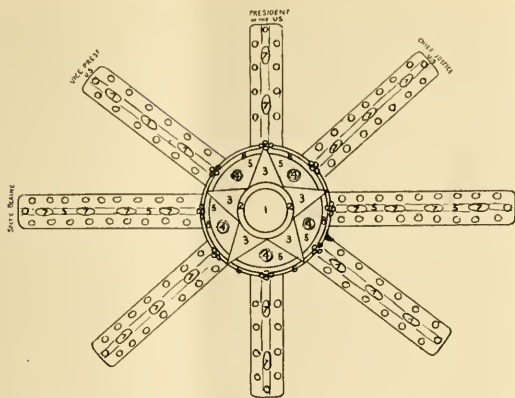
Pitcher & Manda carried off a large number of special prizes offered for orchids. J. Breitmeyer & Sons taking the seconds in same classes.

Messrs. E. G. Hill, Richmond, Ind., W. J. Stewart, Boston, and G. L. Grant, Chicago, acted as judges.

Boston.

The customary revival in the cut flower trade directly after Easter has not been experienced this year. It is reasonable to expect an increase in the demand for flowers to correspond with the resumption of fashionable entertainments, weddings and other society events which are supposed to follow the close of Lent, but the reverse seems to be true this year, and the florists have had to undergo an unwelcome two weeks of stagnation. The overstock of roses in general has knocked prices on most varieties all to pieces, and as for lilies, the belated *Harrisii* and *candidum* blooms that have come to the market might as well have been "dumped" behind the greenhouse, for they are not wanted at any price. Very large quantities of flowers, roses, pansies and violets especially, have been disposed of by the street fakirs at popular prices, and these busy individuals seem to get more and more abundant each season. It is hinted that some of the large florists who are loudest in their denunciations of these gentry are not averse to making use of their methods themselves in a quiet way, and that a number of these corner traders are sent out on the sly, not only by some of the largest stores to help unload their surplus, but are in many cases made use of by the big growers for the same purpose.

The annual supper of the Gardeners' and Florists' Club was celebrated according to the most approved style, on the evening of April 10. It took place at the United States Hotel. The number who sat down to the tables was ninety. The number who got up from the tables was variously estimated at from 180 to 360. The ninety were the net result of the very



1—Palms 2—Mabel Morrison roses. 3—Jacqs. 4—Am Beauties. 5—Maidenhair Ferns.
7—Baskets of Roses. 8—Lycopodium.

earnest work of the efficient committee entrusted with the general arrangements. The 180, more or less, were the result of the combined efforts of Mr. Wax and Mr. Hatch, ably seconded by the Cefrey Immortelle Letter Company. Mr. Cefrey's new machine-made letter is equalled only by the splendid punch in whose agreeable company it made its introductory bow to the Boston florists on that evening. A goodly representation from the New York Florist Club was expected, and chairs were tipped up in anticipation of their arrival, but the only visitor was the always welcome Mr. Manda from New Jersey, who remains ever loyal to his old Boston friends.

The success of the Massachusetts Horticultural Society's application for permission to erect a large exhibition tent on Boston Common next August is exceedingly gratifying, and the delegates to the National Convention are now assured of a great horticultural treat. It will be an exhibition worthy of a long journey to see.

The usual spring show of flowering bulbs on the Public Garden is now in full glory, and attracts crowds of visitors.

W. J. S.

Washington.

The recent dinner given by the delegates of the Pan-American Conference to the President of the United States offered another occasion, and probably the greatest of the season, to the florist to display his skill.

The table was of unique form, representing an eight-pointed star. The center consisted of an almost circular oval, 14x18 feet, from which radiated eight tables four feet wide and from twelve to twenty-two feet in length. Along the middle of each one of these tables ran a belt about twenty inches wide, of maidenhair ferns, alternating every two feet with low baskets of choicest roses, each basket having a distinct variety, either of Luizet, Laing, Rothschild, La France, Brunner, Albany or Bennett, producing a most beautiful undulating or billowy effect of rose and fern as far as the eye could reach. At the junction of each table with the centerpiece stood an elegant silver candelabra, with the light of

the candles softened by shades of white and silver.

But the art of the florist culminated in the decoration of the oval centerpiece, producing a creation of beauty which fascinated the eye. In the center of a colossal star, fourteen feet in diameter, stood a superb palm (*Phoenix vestis*), from whose gracefully spreading branches and broad leaves hung light and dainty garlands of asparagus giving the palm a moss-covered effect, strangely tropical in its character. Through this net-like covering of the tall palm gleamed a myriad of tiny electric lights in red, white and blue shades. The center of the star directly underneath this palm was a mound of several hundred pure white Mabel Morrison roses, while the points were composed of 500 Jacqueminots, imparting to the center of the table a richness of color and a vividness of contrast that is seldom attained in such extensive decoration. The inverted triangle between each point of the star was a miniature garden of maidenhair ferns with a cluster of American Beauties in each center, a wide fringe or border of lycopodium extending entirely around the great oval centerpiece. This ocean of color and fragrance which formed the centerpiece spread, as already stated, in alternating billows of maidenhair ferns and roses to the extremity of each table. No less than two thousand roses were used for this purpose alone; the 120 boutonnières were made up of a Jacq bud and lilies of the valley.

But the florist did not stop here. Each corner and window recess of the great dining hall presented stately groups of palms, ferns, lilies, azaleas and hydrangeas. Upon the wall between the windows were artistically designed rosettes of palm leaves, six feet in diameter. The orchestra balcony, in addition to other decorations, was rendered attractive by three entwined wreaths of laurel, each bearing, in immortelles, the appropriate word "America." This entwining of the three Americas was emphasized by a huge lover's knot of red, white and blue broad-banded ribbons. This idea, so full of sentiment and good will, originated with Senor Romero, the Mexican minister, and was pronounced one of the happiest inspirations of the event. The

floral display, which was the work of Small, the florist, was enthusiastically praised as being the most original, elaborate and artistic ever seen in Washington—where lavish floral decorations at great entertainments are becoming more and more frequent. Z.

New York.

The flower trade for the two weeks following Easter was good, though it began to slack down after that. Prices remained unchanged, for the most part more bulbs came in after Easter; tulips, which were scarce at that time, became comparatively plentiful, but it is evident that not nearly so many bulbs were forced this past winter as formerly. If the usual amount of tulips, etc., had been in it is not likely that roses would have sold so well. A good many hydrangeas and lilies came in after Easter, but they were useful for the large decorations. After Easter narcissus began to come in heavily; they will continue to do so for some little time.

The comparative scarcity of carnations was felt a good deal; it is doubtful whether there has ever been such a general failure before.

Violets have been very good generally, but the finest have been grown in frames, entirely without heat. This would seem to be the most natural way of growing violets, though it is doubtful whether it could be done during some of our very severe winters. They are best grown in frames facing the southeast, with some sort of wind-break at the north, and are kept from freezing by a thick covering of salt hay, which is only removed on bright days. Violets grown this way, without any heat, never seem to be troubled with disease, and the flowers are very fine.

White stocks are to be seen in some florists' windows, nicely grown too. They do not make a showy flower, but make a change at this season.

The second week after Easter was remarkable for its bright weather—a week of sunshine has become a novelty in New York, consequently it brought flowers out with a rush. On the 19th a lot of roses were sold for \$1.50 a 100, this can not be taken as a standard price, but a good many were sold for it. A great many hybrids were in and prices began to decline with them. The street peddlers were out in full force with roses, as well as swamp buttercups and arbutus. These spring wild flowers are seen in the stores as well as on the street, as there is always a certain amount of call for them, though no really great demand.

Rudolph Asmus is going to enlarge his place this year by rebuilding some of his present houses and erecting new ones.

H. A. Siebrecht is enlarging his residence at New Rochelle, and his partner, Mr. Wadley, is building a handsome house at the same place. This firm is now building a lily pond in the angle of their greenhouses, where they expect to flower the Victoria regia this year.

Thos. Young, Jr., is now in treaty for Joseph Jefferson's old homestead at Holokus, N. J., and expects to get it, though the purchase is not entirely consummated. It is a very fine old place, though the famous actor has not lived there for some years.

Plant auctions are exceedingly numerous this spring. Robert Young intends having two auction rooms to give a better opportunity for disposing of his business.

The New York Florists' Club has sent out a circular calling for subscriptions to a permanent fund for the purpose of

holding semi-annual exhibitions of everything appertaining to horticulture. The subscriptions are to be received in sums not exceeding five dollars. At the meeting of the club on April 14 this subject was discussed; the members are desirous of holding a good exhibition and will bend their united energies in that direction. At the next meeting of the club the subject under discussion will be the proposed changes in tariff as affecting the plant trade and it will be of especial interest in the business. It is rather hard to get at any real understanding of this subject—opinions are very conflicting, but the ground taken by Peter Henderson & Co. is agreed to by a large proportion in the trade.

Ernest Asmus has been building a fine residence, which looks like a modernized castle with its handsome turrets.

Mr. Alfred Henderson is slightly improving in health, though unable to take any active part in business. He is still staying in Virginia.

Nomenclature.

S. A. F. Committee on Nomenclature.

JAMES D. RAYNOLDS, Riverside, Ill., Chairman.

Roses:

ROBERT CRAIG, 49th & Market Sts., Phila., Pa.
EDWIN LONSDALE, Chestnut Hill, Phila., Pa.
ERNEST ASMUS, West Hoboken, N. J.

Carnations

A. E. WHITTLE, Albany, N. Y.
JOHN THORPE, Pearl River, N. Y.
WM. FALCONER, Glen Cove, N. Y.

Palms, Ferns and like Decorative Plants:

CHAS. D. BALL, Holmesburgh, Phila., Pa.
JOHN BURTON, Chestnut Hill, Phila., Pa.
W. R. SMITH, Botanic Garden, Washington, D. C.

Chrysanthemums

JOHN THORPE, Pearl River, N. Y.
WM. FALCONER, Glen Cove, N. Y.
J. M. KELLER, Bay Ridge, N. Y.

Beding Plants:

G. L. GRANT, 54 La Salle St., Chicago, Ill.
ROBERT CRAIG, 49th & Market Sts., Phila., Pa.
J. M. KELLER, Bay Ridge, N. Y.
A. E. WHITTLE, Albany, N. Y.

Orchids:

DAVID ALLAN, Mt. Auburn, Mass.
BENJ. GREY, Malden, Mass.
WM. FALCONER, Glen Cove, N. Y.
J. FORSTERMAN, Newtown, N. Y.

Mrs. Alpheus Hardy.

THE "OSTRICH PLUME" CHRYSANTHEMUM.

ED. AM. FLORIST.—I was surprised at Mr. John May's criticism of our advertisement of the chrysanthemum "Mrs. Alpheus Hardy" in your issue of April 1. I say ours, because no other house in this country but that of Peter Henderson & Co., have used the expression "The Ostrich Plume" in connection with the name of the variety. I hope I am broad enough to frankly recognize another's right to make any fair or truthful criticism, but that Mr. May's strictures are not only misleading, unfair, but also ungenerous, I believe any fair minded man will quickly decide.

To begin with, Mr. May charges that we have "renamed" the variety. I challenge him to produce any advertisement of this chrysanthemum sent out by us, or any catalogue or price list of ours where the true name, "Mrs. Alpheus Hardy," does not appear. The term "Ostrich Plume" as we use it is no more a synonym than the heading that also appears in the same advertisement, "A Glorious Flower," and no plant of it has ever been sent out by us that bore any other label than "Mrs. Alpheus Hardy." To prove our consistency, let Mr. May turn to the second page of cover of our catalogue for 1890, of "Everything for the Garden," and he will find that at the bottom of the page we offer plants, deliverable Jan.

1, 1891, of the Pink Ostrich Plume chrysanthemum "Louis Boehler." Surely we are not foolish enough to designate two varieties of the same plant by the same name. Mr. May's article shows that he has a good deal of both business and advertising experience yet to learn, for I know beyond all question that the designation to which he takes exception has increased the sales of this chrysanthemum with florists who were wide awake enough to secure a stock, at least ten-fold more than if we had not used it.

Mr. May also says that the term "Ostrich Plume is no more applicable to this particular flower than is a cabbage to a clam." Passing by his poetical comparison, let me say, that when we first saw this variety (fall of 1888, I think), its resemblance to an ostrich plume was one of the first things that struck us, and although we never used the expression until we had the plants to offer, the resemblance must have also occurred to other minds, for last summer in the *Gardeners' Magazine*, of London, the introducer's European agent in describing its wonderful beauty says that "in appearance it suggests an ostrich plume."

Another quotation from Mr. May and I am done. He says: "Is it not much more just, fair and honest to call a plant by its right name?" In fancy I see the lofty poise of our friend, as he gives forth this oracular utterance, and it is well for us all to feel that at Summit we have still a sage, whose code of earthly virtues is so nearly perfect that on him we can always safely lean. Yet it is to be regretted that Mr. May should have made such an uncalled for attack. Wise man that he is, we hope he may some day conclude that, in this instance at least, he would have done better to have remained silent, or to bring the matter more clearly to his comprehension, closed up as tight as his favorite "clam."

ALFRED HENDERSON,
of Peter Henderson & Co.
New York, April 17, 1890.

Californian Plant Novelties.

In the interesting notes on novelties in the AM. FLORIST April 1, I observe that the botany of California is quoted in the reference to the "Pride of California," *Lathyrus splendens*, Kellogg. When Prof. Sereo Watson's great work was published, *Lathyrus splendens* was virtually unknown. Not until the spring of 1882 was this magnificent vine rediscovered, by the late Dr. C. C. Parry and C. G. Pringle, with whom I had the honor of traveling at the time. From that time to the present there has been no question as to this wild pea being entirely distinct from any other species. Unfortunately the writer distributed seed of *Lathyrus venustus* with seed of the true *splendens* to European correspondents in the fall of 1882, hence the present confusion that exists. The true *splendens* has dark, brilliant rose red flowers, large and full, borne in dense clusters. Once seen it can scarcely be forgotten, and in our mountains where this lovely vine trails over the native shrubbery, it has gained the appropriate name of "Pride of California." It is a hardy perennial and a profuse bloomer. I found it in bloom this season on New Years day in our mountains. I took great pains to secure seed of the genuine *splendens* last season and was successful in my effort. A variegated variety of this I have also observed.

Lathyrus venustus bears smaller flowers of a purple rather than rose red color,

but seems to have met with favor in its accidental introduction into Europe under a false color. We find *Lathyrus venustus* described in Wm. Bull's catalogue (London) under the name of *Lathyrus splendens* as follows: "A splendid perennial climber, producing a profusion of large scarlet-purple blossoms in clusters of from 10 to 12. The individual flowers are 1½ to 2 inches in size, with large banner-like petals. The plant is allied to the common everlasting pea, but the blossoms are larger and more abundant and their color is brighter." *Lathyrus vestitus*, to which *L. splendens* was erroneously referred by Prof. Watson, in the Botany of California, is an equally lovely perennial pea, with white blossoms delicately striped with rose-red veins. It is entirely distinct from either of the preceding species (each higher than mere varietal rank).

Dodecatheon Clevelandi has gained prominence in catalogues and is deserving of all the praise it receives. This lovely plant, which has in some catalogues been called the "giant cyclamen," from its resemblance to the Mad Violet of Italy, is really no more than a variety in my judgment. It is, however, destined I believe to a permanent place in our affections, and as many forms will perhaps be brought to the attention of florists as there already exists of its near relative, *Primula obconica*. I have this season detected a tendency in the flowers to grow double—the stamens becoming abnormal petals, while the usually five divisions of the reflexed corolla has multiplied to ten and twelve divisions. *Dodecatheon Clevelandi alba*, with white flowers, and *D. Clevelandi elegans*, with phlox-purple flowers, are two varieties which will be offered for the first time during the following season. The center of all these varieties is a rich purple, bordered with bright lemon yellow. The base of the exerted stamens are also of a rich purple purple, tipped with primrose yellow. The corolla varies in color as above noted, from pure white to phlox purple.

Single flowers of *Romneya Coulteri* grown in this city have measured nine inches across. It is a magnificent plant and with us attains a height of fifteen feet or more as a rule. It is attracting attention at home as well as abroad, and any information as to its treatment in cultivation is eagerly sought after in Southern California. Your illustration of this is the best I have yet seen, but scarcely gives an idea of its appearance in its native canyons. C. R. ORCUTT.
San Diego, Cal.

Clematis "Paniculata."

The plant that was grown in the Botanic Garden, Harvard University under this name and included in its catalogue of plants in 1879, is not the same plant as the one your correspondent, page 432, has reference to at all, and I am satisfied the Harvard plant was the true one. And turning up the matter in my old books I find that the Harvard plant was examined and labeled by Prof. C. S. Sargent, one of the most careful and accomplished botanists living, and with the most complete botanical library and herbarium in the country at his command.

Until I read your correspondent's note I had never known or heard of his being "in a measure responsible" for anything in connection with the plant in question. Yes, our plants have been raised from seed, and the plants are here now healthy and vigorous to bear witness for them-

selves, and I shall be delighted to show them to any one who cares to look at them. Because your correspondent has failed to grow it from seed is no reason whatever why others should not succeed. We all know every species of clematis in cultivation can be grown from seed, only it often takes several months or a year for the seed to germinate.

WM. FALCONER.

Is Primula Obconica Poisonous?

In a recent issue of *Garden and Forest*, Dr. George Thurber contributes an interesting article under the heading "A so-called poisonous primrose" from which we extract the following:

"It is certainly singular that so many should have suspected *Primula obconica* as the cause of annoying skin troubles in themselves and others, without closely examining the plant. A pocket magnifier of moderate power would have revealed such a condition of hairiness that would have suggested further examination with a compound microscope. Both surfaces of the leaves, and especially their margins, show a great abundance and variety of hairs, while the petioles or leaf-stalks are conspicuously hairy, as may be seen without the aid of a glass. To one interested in Trichomes, this plant presents material for study in great abundance and variety. At my request, Mr. John Payne has

would also give them firmness to penetrate the skin when the plant was handled, and, breaking off, they would remain and cause irritation. Has any one examined the skin of an affected person with a magnifier to see if the hairs were remaining in the skin? I did not meet with the only person among my friends whom I know to be affected by the primula until long after the irritation had ceased. Some have likened the effect produced by *Primula obconica* to those of *Rhus Toxicodendron*, the poison ivy, but it is a well established fact that many persons are poisoned by *rhus* without coming in contact with the plant. Merely passing near it or being near a fire where it is being burned is sufficient to cause serious poisoning, indicating that the active principle is volatile. In stinging with nettles an acid liquid is said to be injected into the wound made by the stinging hairs. Is the irritation caused upon the skin of those who handle *Primula obconica* any different from what would be caused by a multitude of very fine pine or other splinters? Those who have traveled in the cactus region of Arizona and neighboring territories are well aware of the irritation that may be and often is caused by the entrance of minute spines into the skin, and do not need to consult a work on dermatitis venenata to learn if the order cactaceae has furnished, among its eighty-six genera, one or more species which have been

for investigation, that we may know the extent of the evil. Before it is too late it would be prudent for those microscopists interested in the study of minute plant structure to secure material while it is still to be had."

—In reply to B's request, published in April 1 issue, I give my experience in handling *Primula obconica*, having grown many of them for two years past. Last year I noticed a rash on men employed in working among these plants. This spring, a lady who had handled them in making bouquets, had a rash, coming out like "hives" or "nettle-rash." One of my workmen was also troubled in the same way after repotting and trimming the same kind of plants. The sores spread and are very irritating. They are so like "hives" at first, that people may very likely be treated for that, when really suffering from poisoning by the *Primula obconica*. Some may handle it with impunity, but I consider it a noxious plant. Parkdale, Ont. R. MEARNS.

—"B" in April 1 number, page 412, asks if "*Primula obconica*" is poisonous to the hands. A few years ago my wife poisoned her hands with the plants so that she was unable to sleep at night on account of the severe burning, and in order to soothe the pain would bathe her hands in cold water and hold them out in the cold. At first we did not know the cause, after awhile it became apparent, and then I would not allow her to touch the plants. Subsequent experience showed that by bathing the hands in a solution of carbolic acid, after handling the plants, the poisoning was prevented, and now she can handle them with impunity. The secret I think, is that the plant is poisonous in contact to persons having humor in the blood—as salt rheum—otherwise it is harmless.

McK.

—Regarding *Primula obconica*, Mr. Geo. Heil the florist and his first assistant Mr. Freeman, have of late been troubled with what the physician at once pronounced "poisoning by some plant." I feel certain that it was *Primula obconica* that did the mischief.

Toledo, O.

O. SCHROETER.

—In answer to B, would say that last month I was troubled with what the physician thought might be eczema, but nothing seemed to help me. Seeing a note regarding *P. obconica* being poisonous I watched, and found that every time I touched a plant of this primula I had an extra "swell" upon my hands and face. I ceased touching it and merely looked at it. Even that caused an itching and finally I kicked the plants pots and all out on to the rubbish pile. Have had all I want of *P. obconica*.

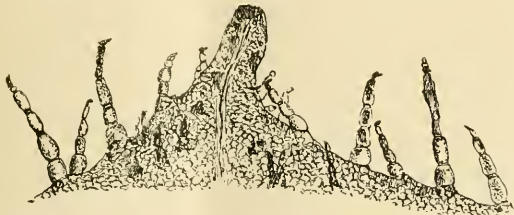
Lynn, Mass.

C. W. LEWIS.

—I have also been poisoned by *Primula obconica*. Am of the opinion that the leaves and not the flowers do the mischief, and if this is the case, no harm would result from handling the flowers in making up designs. I find that sol. carbolic acid is an effective remedy. Worcester, Mass. A. H. LANGE.

OUR NEW TRADE DIRECTORY is now ready. It gives a complete and accurate list of the florists, nurserymen, and seedsmen of the United States and Canada, designating the special branch of the trade each one is engaged in. Price \$2.

THE Missouri State Hort. Society will meet at Poplar Bluff, Mo., June 3, 4 and 5.



MAGNIFIED LEAF-HAIRS OF PRIMULA OBCONICA [FROM GARDEN AND FOREST.]

made a drawing of a fragment of a leaf as it appears under a microscope. This shows the hairs which fringe the margins of the leaves and the calyx-lobes. The large projection in the engraving is one of the teeth upon the margin of the leaf. The surface of a leaf shows some hair like those on the margin, others much shorter and some much longer and weaker. The hairs upon the petioles, so long as to give them a shaggy appearance, present, under the microscope, a great variety in appearance. The hairs are seen to be made of many cells placed end to end. These cells are oblong in outline and diminish slightly in size from the base upward. Frequently one of these cells is much narrower than the one above and the one below it, appearing like a mere stem connecting two parts of the hair. This occurs in no particular portion of the hair, and sometimes there are two constrictions of this kind in the same hair. In many plants the cells have a deposit of silica. This is the case with *Primula obconica*. If a portion of a leaf, including a portion of the margin, or of the calyx, be simply boiled in nitric acid, the contents of the cells will be removed, leaving a skeleton of the cells in silica, and in this *primula* the hairs are shown to have a silicious skeleton. All traces of the acid being removed by abundant washing, the specimen may be mounted. The large proportion of silica in the hairs of this *primula* would tend to render them brittle; it

known, upon good authority, to produce some degree of inflammation of the skin by contact. The one thing needed in the case of *P. obconica* is a careful investigation as to the character of the disturbance it causes and how it produces it. If, as now appears probable, the hairs with which the plant is abundantly provided are the cause, do these hairs inject any acid liquid or other substance into the skin? Though contact with the plant is said to produce skin-poisoning, is there any proof of the presence of a poison of any kind as that term is generally understood? What proportion of those who handle the plant are unpleasantly affected? Are persons of a peculiar habit or complexion more susceptible to its effects than others? If these points appear trivial, it should be considered that no plant has been introduced into cultivation in a long time possessing so many elements of popularity as *P. obconica*. It is of great value to the florist, to whom its ready propagation, its abundant and continuous bloom and its adaptability to bouquet and decorative work all commend it. But to the amateur cultivator and lover of plants, whether he cultivate it in the window garden or elsewhere, it is an almost perfect plant. In view of its irritating qualities, some conscientious florists have ceased to offer it for sale, and it promises to pass out of cultivation altogether. With the hope of averting what would be a floral calamity, I plead

Steam vs. Hot Water.

In the April bulletin of the Hatch Experiment Station of the Massachusetts Agricultural College, Amherst, Mass., appears a report of a second experiment upon the comparative value of steam and hot water for greenhouse heating.

The report says: "Much discussion having been provoked relative to the results of our experiments with steam and hot water for heating greenhouses, reported in Bulletin No. 4 and 6, and especially as to the accuracy of the results, we have the past winter made a careful repetition of the experiments to correct any errors that might be found and to verify previous results. The boilers have been run with the greatest care possible from December 1, 1889 to the present date, March 18, and every precaution has been taken that no error should occur."

Then follows a table giving the temperatures of the two houses, taken three times daily. The summaries are given below.

SUMMARY FOR HOT WATER BOILER.

Total coal consumed from December 1, 1889, to March 18, 1890, 6,598 lbs. Average daily temperature for the time, 48.39°.

SUMMARY FOR STEAM BOILER.

Total coal consumed from December 1, 1889, to March 18, 1890, 9,784 lbs. Average daily temperature for the time, 48.39°.

We give the remainder of the report in full with the exception of the table of sun temperatures.

REMARKS.

The following criticisms have been made by parties not conversant with the facts of the case:

1st. That the piping and check valve were not arranged so as to get the most perfect circulation of steam without a great loss of fuel.

2d. That the flues from the two boilers entered the chimney in such a way as to give a better draft to the hot water boiler.

3d. That the exposure of the two houses was such that the house heated by hot water received more sun heat than the one heated by steam.

These criticisms we think we can answer to the entire satisfaction of all fair-minded readers.

PIPING AND CHECK VALVE.

By numerous test examinations we have found that the circulation of steam through all the pipes, above the water line of the boiler, is perfect whenever there is fire enough to create steam in the boiler—that the check valve must consequently work easily and that there is never any standing water in the return pipes above the water line of the boiler.

FLUES.

The flues are arranged so as to give as nearly equal draft to the boilers as is possible and have them enter the same chimney and enter at the same point, and if there is any difference in the draft of the two it is in favor of the steam boiler.

EXPOSURE TO SUN HEAT.

It was suggested by the late Mr. Geo. Hills, of Arlington, that, perhaps, from their location, the steam heated house received less sun heat than that heated by hot water.

To test this matter two standard thermometers were placed in each house so that the sun's rays should fall upon them equally in both houses at the same time,

one on the eastern and one on the western exposure.

Records were made three times each day for twenty days, ending March 18, [the table shows an inappreciable difference in the sun temperatures of the two houses.—Ed. A. F.] Of these twenty days about eleven days were cloudy and nine clear and probably the period of time under observation was long enough to show that the amount of sun heat received by each house is so nearly equal as to, in no way, change the results given in the temperatures of each house.

Steam Heating.

I have often thought I would write on the subject of steam heating such as we have in use here, now I do so, and also answer J. Ralph's question of how long a steam heating apparatus can be left with safety without attention. Steam has been in use here six years (I have had charge four years) for heating about 4,000 square feet of glass, devoted to growing a general assortment of ornamental and bedding plants, roses, grapes, etc., such as are usually grown in private places. It also heats stable and carriage house (under part of which boiler is situated), and employer's large dwelling house 300 feet away from the boiler. The boiler we use is a 42 H. P. horizontal tubular, dampers all work automatically and can be adjusted to any number of pounds pressure we desire, we usually run five pounds. With this low pressure and large slow fire we can leave fire without attention from 12 to 24 hours. Before putting in this steam boiler we had in use three hot water heaters for greenhouses, large stove in stable and a steam heater in dwelling house. Now one fire does the work more satisfactorily than five did formerly. The only fire in employer's dwelling is in kitchen range. We have here economy in labor, it is easier to care for one large fire than five small ones in as many different places. We also economize in coal; we use now what is known as yard pea, the cheapest coal, formerly used stove and egg size. Mr. S., my employer, told me he saved the price of the boiler the first two years on the difference in the price of the coal. Then there is another thing to consider, there is no dust from coal and ashes working up through the house, as is always the case where apparatus that supplies heat for house is in the cellar under the house. Taking all things into consideration, I think we have here one of the most perfect arrangements for heating there is in existence, and as simple to care for as an ordinary hot water heater, as all we have to do is to clean fire once a day and put in coal and water and it takes care of itself.

WM. J. ROWE.

New Haven, Conn.

—In the last issue of the FLORIST, H. Grant has stated that he can leave his fire 12 hours without attention, also that after coaling up and then covering with three inches of ashes he can get steam up in from 15 to 20 minutes. I would ask Mr. Grant how many feet of pipe the boiler supplies with steam. If his fire burns quick enough after the way he fixes it to get up steam in 15 or 20 minutes I would like to know how it could last 12 hours.

JOHN P. RING.

Williamsport, Pa.

—In reply to Mr. Ralph's inquiry as to how many hours florists can leave their steam boilers without attention. I wish to state we can run ours eight or ten hours, according to the fuel and weather, and could leave it 12 hours if

some one else paid for the coal. Mr. R.'s inquiry covers more ground than appears on the surface. At first glance it is like asking whether it is right to water your plants every day. You would answer that depends on circumstances, and the success of his boiler depends on the same uncertainties. First, is your boiler large enough; second, have you grate surface enough; thirdly, have you exposed sun faces about your boiler and pipes that you don't want to heat? If so cover them up. What kind of coal or other fuel do you use? How many pounds of steam do you carry? Is your bridge wall close enough to the boiler? And so on with these and a score of minor points, which taken collectively will certainly insure failure. You have to learn to run a steam boiler and it is doubly hard after using hot water. You will get more information from some one that has put in steam and paid dearly for their experience than you can from steam fitters in general, whose only aim seems to be like that of the famous Cummencation Office, to show people "how not to do it." The experience that we have cost us \$500 more on the original price than it would have done if we had had the experience I now think we have. My advice is to see some one that has steam working successfully in their place and to be shown points with explanations and you will come out all right in time. We would not exchange our steam for any hot water system we have yet seen.

Penbody, Mass. MILBURN P. WARD.

OBITUARY.

DR. GEORGE THURBER, one of the most accomplished botanists of the country, died at Passaic, N. J., April 2. He was born in Providence, R. I., September 2, 1821. In 1850 he was one of the special commission appointed by the Government to Mexico and took part in several of the sensational skirmishes with the Indians. While there he began those researches in botany that afterward made him famous. In 1853 he went to New York, where he received an appointment in the assay office, but in 1856 was forced to resign on account of his Abolition sentiments. In 1859 he was appointed professor of botany and horticulture of the State Agricultural College, Lansing, Mich., and while there he revised Dr. Darlington's "American Weeds and Useful Plants." In 1863 he accepted the editorship of the American Agriculturist, and retained that place until 1885, when failing health caused his retirement. During his twenty-two years' service as editor, he had sole charge of all works on horticulture published by the Orange Judd Company. He was also the author of all the articles on botany and horticulture now to be found in Appleton's Encyclopaedia.

WASHINGTON, D. C.—A stranger whose name was given as John Thompson died at the Alexandria Infirmary recently. He was found in a railway cut seriously injured and from then to the time of his death he was incoherent in speech and generally asleep, but from his talk it was gathered that he lived in Philadelphia and that he was a gardener.

MR. R. V. VAN ZANTEN, of G. V. Van Zanten & Co., Hillegom, Holland, is on his annual trip through the States in the interest of his house.

OUR NEW DIRECTORY of the florists, nurserymen and seedsmen of the United States and Canada is now ready. Price \$2.

News Notes.

NEW YORK.—It is reported that Florist C. F. Klunder has returned from Europe.

SPRINGFIELD, O.—Messrs. Good & Reese the florists, recently suffered a serious loss by fire.

PASSAIC, N. J.—Easter trade in cut flowers was excellent. Prices good. Pot plants not so good.

PHILADELPHIA.—Mr. Harry Bayersdorfer, of H. Bayersdorfer & Co., sailed for Europe on the steamer City of Richmond April 30.

SAN FRANCISCO.—The annual spring show of the California State Floral Society will probably be held at Irving Hall, this city, May 20 to 23 inclusive.

BRADFORD, ILL.—A recent hailstorm destroyed about 3,000 feet of glass on the greenhouses of M. R. Saunders. Single and double thick fare about alike. No insurance.

NEWTON CENTER, MASS.—The exhibition of the Newton Horticultural Society will be held about June 20 in Associates Hall. The sum of \$130 has been appropriated for prizes.

OMAHA, NEB.—Easter trade much larger than last year. Increased call for all flowers, especially for fine roses. Prices same as last year, supply short, quality good. Good demand for blooming plants.

RICHMOND, VA.—W. A. Hammond has moved to his new store at 107 East Broad street. J. Harry Harvey is building a large range of houses in another section of the city, where he will move soon.

DEADWOOD, SO. DAK.—C. Buettner has discontinued his florist business, closing out his stock of plants and selling his property. Cause is stated to be the low prices for florists' products and high prices for everything else which prevail here.

RICHMOND, IND.—Hill & Co. have sold their catalogue and local city business to Gause & Bissell who will continue the same. Hill & Co. intend devoting their entire time and attention to the wholesale plant business and to the raising and dissemination of new plants.

GREENVILLE, O.—James Frost, formerly in the employ of W. W. Green, Son & Sayles, Watertown, N. Y., has purchased the greenhouse property of E. Y. Teas here and will conduct the same. Mr. Teas will give his entire attention to his bulb and nursery business.

ROCHESTER, N. Y.—Easter trade about 20 per cent larger than last year. Prices were lower, but not too low—last year they were too high. Supply was not quite equal to demand, sold out very clean. Quality of flowers was below that of last Easter. Good demand for blooming plants.

BALTIMORE.—A heavy hail storm smashed a lot of glass in this city the afternoon of April 27. The signal officers say that it was the worst hail storm on record in this country. Some of the stones weighed three and four ounces and they crashed through plate glass nearly half an inch thick.

CLEVELAND, O.—Easter trade was probably one third larger than last year with prices a trifle higher. Quality of flowers was good, especially lilies, which were very fine. An increase in the call for

blooming plants, any well flowered plant sold rapidly and for a good price. Less call for baskets, loose flowers being the main demand.

WASHINGTON.—At the recent dinner given by the Pan-Americans to President Harrison, a cluster of roses on the table in front of one of the distinguished foreign diplomats, in its arrangement so pleased him that he had it photographed the following morning to be sent abroad to one of the European Capitals as an art study and evidence of American skill in floral arrangement.

ST. LOUIS.—On Sunday, April 13, a heavy hail storm played havoc with glass structures at Kimmiswick, a suburb of this city. The storm lasted fully fifteen minutes, and some of the hailstones were as large as walnuts. J. W. North lost fully 12,000 lights of glass, and T. W. Guy lost fully one-half of his glass. No insurance. The loss will be heavy, coming as it does at this season of the year, the stock being badly cut and disfigured.

SAN FRANCISCO.—Easter trade was about 20 per cent larger than last year with notably increased call for Lilium Harrisii. Prices on cut flowers ruled about same as last year, quality better, supply equal to demand. Some increase in call for blooming plants. Out of door grown callas were plentiful and therefore common. Tree peonies and Lilium Harrisii brought good prices. Good plants of Harrisii brought \$1.50 to \$2 each.

CINCINNATI.—Mr. Frank Huntsman has associated with himself Mr. C. L. Mitchell, and the business will be continued as the Huntsman Floral Co. Mr. Harry L. Sunderbruch has withdrawn from the firm of A. Sunderbruch & Son, and will spend a few years on his farm at Williamsburg. Mr. A. Sunderbruch has also withdrawn from the firm, and the business will be continued by the younger sons under the firm name of A. Sunderbruch's Sons.

SITUATIONS, WANTS, FOR SALE.

Advertisements under this head will be inserted at the rate of 10 cents a line (seven words) each insertion. Cash must accompany order. Plant ads. not admitted under this head.

SITUATION WANTED—In commercial place by a gardener of 25. For particulars address H. C. care American Florist, Chicago.

SITUATION WANTED—As gardener; 15 years' experience in 1 series and greenhouses. References given. Address S. M. care Am. Florist.

SITUATION WANTED—By florist and gardener, good propagator of roses and general stock; commercial or private place. P. M. W. Way, Twin Oaks, Pa.

SITUATION WANTED—By married man, age 33; 15 years experience in the cultivation of fine stock and greenhouse plants. Orchids a specialty. JOHN BANSLEY, 71 Borden ave., 11 City, N. Y.

SITUATION WANTED—By first class gardener and florist, good orchid grower; commercial or private place. Best of references can be given. Address O. F. care J. Fonta Horst and Webster Sts., New Orleans, La.

SITUATION WANTED—By a single German florist and gardener, 30 years of age, sober and industrious, 15 years experience in growing roses, carnations and all kinds of cut flowers for market. Address W. L. box 55, Commerce, Ill.

SITUATION WANTED—By a practical florist, single 15 years experience in Germany and England, good experience in propagating, plant growing, making up designs; no objection to private place. Address OSCAR SCHULZ, New York City.

SITUATION WANTED—By practical florist; young man; single; 6 years experience in growing roses and all greenhouse stuff for cut flower market and shipping trade; makes and lilies designs. Good references in the North and South. Address E. L. care American Florist, Chicago.

SITUATION WANTED—By a practical gardener and florist, competent in all branches, care of gentleman's private or commercial place; first class rose, carnation, violet grower; married; age 35; best references. Address W. G. 313 Meeker ave., Brooklyn, E. D., N. Y.

WANTED—Gardener, single man that understands care greenhouse, lawn, good rose grower, etc., quiet private place. Box 5, American Florist.

WANTED—Reliable young working florist who thoroughly understands cut flower growing in bulbs, etc.; steady place for right party. Address CHICAGO GROWER, care American Florist.

WANTED—Gardener married man, no children, who is capable of taking charge of greenhouse department; must be a first class rose and cut flower grower and a good plantman. Apply enclosing copies of testimonials and wages expected to. S. S. BAIN, 48 Beaver Hall Hill, Montreal.

WANTED—Man to take charge of greenhouses in cemetery; must be thoroughly posted on propagation and growth of cut flowers and bedding stock, and must write and speak English well. A permanent paying position for a capable energetic man. Young man preferred. Address L. C. care American Florist.

FOR SALE—One Hitchees No. 1 conical boiler, in use 3 years. Price, \$35.00. M. R. SAUNDERS, Bradford, Ill.

FOR SALE—Florist business; city 30,000 inhabitants. Solenoid retail trade in and out of city. Well stocked and equipped. For rent or for sale. Particulars, address C. C. care American Florist.

FOR SALE—Half interest in a first class commercial place with all modern improvements in one of the best west. etc. cities. Falling health is the cause for wishing to sell. Address J. C. care American Florist.

FOR SALE—Florist business in Indiana town, 15,000 inhabitants. 3 greenhouses, well stocked, heated with hot water; beautiful residence containing 10 rooms. Good reason for selling. Address K. care American Florist.

FOR SALE—Florist and seed store, with 5,000 feet of glass on three houses, heated with hot water, with a full and complete stock of plants; prominently located in the center of the city, five minutes from depot; and everything. For rent or for sale. A good trade in the way of making up decorations and funerals. Reason for selling, want to go west. For particulars, address J. BROS., P. O. Box 212, S. & 40 West Scott Place, Elizabeth, N. J.

FOR SALE—A well appointed wholesale floricultural establishment, 3,000 square ft. of ground, covered with glass, in a lively suburb of New York City. All cut flowers are sold on the premises to first-class retailers, and the demand exceeds the supply. Excellent reasons given for selling. Price, \$30,000, one-third cash, balance on bond and mortgage. For particulars address THOS. W. WEATHERS'S SONS, 46 and 48 Marion Street, New York City.

FOR SALE—A grand opportunity to any one about building greenhouses. The undersigned will sell (with or without interest) the entire plant at a great bargain, consisting of about 2 1/2 acres of glass, 700 feet of ventilating apparatus (Hitchings & Co.), 1,000 feet of 4-inch pipe, two No. 1's, one No. 15, one No. 16 and one conical boiler all in first-class order, and made by Hitchings & Co. Houses only been built a short time. If further particulars apply to J. BROS., P. O. Box 212, South Orange, N. J.

FOR SALE—A good paying florist business in a western city of 20,000 inhabitants with 10 different railroads running into same. 3 greenhouses built 3 years ago and heated with hot water, one-half acre of ground, hydrant water, fine dwelling house with 8 rooms, barn, etc. Ground and houses can be leased or sold. Terms and cash terms. Stock must be sold for cash; stock consists of all A No. 1, selling stock, no trash, amount of cash required about \$2,000. Good local and foreign trade established. For full particulars address C. American Florist, Chicago.

TO LET.

For a number of years, a most desirable florist and nursery establishment on Long Island, N. Y., being an old stand and within a few blocks of the elevated railroad station, to be let for a long or short time and bridge. The place consists of about 3 acres of very good soil, well stocked with young trees, shrubs, vines, etc., etc. There are also a number of old frames, etc., etc. all well filled with good reliable plants. Being in the proximity of all the principal cemeteries, a large and steady business is done in bouquets and floral designs. Any good, competent gardener need apply. Four months is the reason. For further particulars apply to HENRY MILLER, Florist, East New York, Station E, Brooklyn, N. Y.

Public Sale
of a valuable FLORIST BUSINESS, at
CATONVILLE, MD.

3 miles from the limits of Baltimore City. Business established 22 years. The proprietor wishes to retire from business. Will sell at Public Auction.

ON TUESDAY, MAY 20th, 1890,

At 10 o'clock A. M.,

His valuable Florist business at Catonsville, Md., including dwelling house, 3 greenhouses, 5,000 and 6,000 feet of glass are well stocked with plants, perfect system of heating, and a fine orchard, with about 1,500 ft. of 4-in. pipe 3 wells of water, has a tract of land with a frontage of 351 and a depth of 14 feet, with privilege of purchasing water with 1 mile of walk of steam or horse railway. Abundance of small fruit and shrubbery on property. Will sell stock with the property or separately.

ANDREW BASSLER,

CATONVILLE, MD.

Coming Exhibitions.

June 24-25, Boston.—Rose and strawberry exhibition Mass. Hort. Society.

August 19-22, Boston.—Annual exhibition Mass. Hort. Society.

October 28-Nov. 1, Atlanta, Ga.—Chrysanthemum show, Piedmont Exposition Co.

November 4-6, London, Ont.—Chrysanthemum show, Gardeners' and Florists' Club of London.

November 10-14, Philadelphia.—Chrysanthemum show, Penna. Hort. Society.

November 11-13, Boston.—Chrysanthemum show, Mass. Hort. Society.

November — — — Chicago.—Chrysanthemum show, Chicago Florist Club.

November — — — Cincinnati.—Chrysanthemum show, Cincinnati Florist Club.

November — — — Indianapolis.—Chrysanthemum show, Society of Indiana Florists.

November 11 — — Montreal, Canada.—Fall show Montreal Gardeners' and Florists' Club.

November 12-13, Worcester, Mass.—Chrysanthemum show, Worcester County Hort. Society.

Chicago.

Chas. Reissig has removed to 318 Wabash Ave., in the Auditorium Building. J. D. Reynolds is preparing to entirely rebuild his greenhouse plant at Riverside.

The present system of marketing cut flowers was vigorously discussed at a recent meeting of the Florist Club, and the announcement of the subject for debate brought out a phenomenally large attendance. Mr. J. D. Reynolds arraigned the present system and Mr. C. H. Fisk defended it. The discussion soon became general and was at times rather warm.

A meeting of the florists and growers of Chicago and vicinity was held the morning of April 26 "To consider the expediency of establishing a general market or flower exchange association, whereby the relations between buyer and seller may be made more satisfactory than at present, and prices so adjusted that they shall be uniform to all, and the 'fakir' deprived of certain advantages he now possesses." There was a large turnout to the meeting, and after considerable discussion a committee of seven, consisting of Messrs. J. T. Anthony, F. F. Bentley, J. D. Reynolds, F. Kennicott, E. H. Hunt, M. F. Gallagher and G. L. Grant, was instructed to formulate a plan for an association or exchange and submit the same to a subsequent meeting to be held Saturday, May 10, at 10 a. m. in the club room of the Sherman house.

ORANGE, N. J.—Ernest Porsch, of Hamilton street, will soon build a new rose house, 100x20, and Henry Decker of Center street is building one 180x20 feet. Mr. Decker grows his roses in solid beds, and is a firm believer in that system. Alfred Hibbins, Dood street, East Orange, will build a carnation house 120x16 and a propagating house 120x8. John McGowan will soon erect a new house 100x18 for his new carnation Lizzie McGowan. Jacques Bros. are trying to dispose of their greenhouses and store with the intention of retiring from business.

20,000 HEALTHY YOUNG ROSES.

Good, strong plants of leading sorts for florists' use, now ready. Write for prices.

WE HAVE NO BLACK SPOT ON OUR PLACE.

THE FLORAL EXCHANGE.

614 Chestnut St., Philadelphia, Pa.

NANZ & NEUNER,

LOUISVILLE, KY.

ILLUSTRATED CATALOGUE OF 80 PAGES, FREE TO ALL.

100,000 ROSES READY,

in best condition, grown in 2 inch pots, ready for shifting or planting out. Price of 2 inch pot Roses, Buyer's Selection, per 100, \$1.00; per 1000, \$10.00. OUR SELECTION OF SORTS, in 25 best market sorts, per 1000, \$35.00.

Archduchess Isabella.	Jules Finger.	Little Pet (Pot).
Adam.	Louise de la Rive.	Lauretta.
Aline Sisley.	La Princesse Vera.	Mme. Lambert.
Anna Oliver.	La Pactole.	Mme. Francisca Krueger.
Aurora.	Lamarque.	Mme. Jos. Schwartz.
Bongere.	La France.	Paquerette.
Bon Silene.	Louis Philippe.	Perle d'Or.
Beauty of Stapleford.	Mme. Alex. Bernaix.	Perle des Jardins.
Camille Raoux.	Mme. Caroline Kuster.	Perfection de Montplaisir.
Clement Nabonard.	Mme. Bosanquet.	Queen's scarlet.
Coutesse Frignouse.	Mme. Chedanne Guinoisseau.	Queen of France.
Couquette de Lyon.	Mme. Remond.	Sombreuil.
Compie de La Barthe.	Mme. de Vetry.	Souv. de Mme. Pernet.
Cornelia Cook.	Marie Ducher.	Souvenir d'un Ami.
Chas. Rovelli.	Marie Guillot.	Safrano.
Catherine Mermet.	Marie Van Houtte.	Susannah Blanchet.
Duchess de Thuringe.	Marie Lavalley.	Triomphe de Luxembourg.
Estella Pradell.	Marchal Niel.	The Bride.
Euphrosyne.	Malmaison.	Valley de Chamounix.
Etoile de Lyon.	Mignonette.	W. A. Richardson.
Gloire de Dijon.	Natalia Imbert.	White Bon Silene.
Hermosa.	Nocie Merle.	Papa Gontier.
Homere.	Lady Washington.	

Most of the above we can also offer from 3 inch pots, at \$6.00 per hundred.

NEWER SORTS.

The Queen, new white, \$12 per 100. **Souvenir de Woolton**, (does fine with us), \$12 per 100. And dozens of other new sorts, for which see our Wholesale Catalogue. By the unbroken hundred we can furnish from 2-inch pots at \$5 per 100.

Sombreuil, Malmaison, M. Niel, Dijon, Salfaterre, Lamarque, Etoile de Lyon, Mrs. Jos. Schwartz, Marie Guillot, Hermosa, Perle des Jardins, Etc.

A Special Offer.—If selection is entirely left to us, will furnish 1000 2 inch pot Roses in 50 fine sorts for \$30.00.

FOR BEDDING PLANTS, see our Wholesale Catalogue. If you did not get a copy drop us a postal.

Address **NANZ & NEUNER,**
LOUISVILLE, KY.

YOUNG ROSES.

PERLES, NIPHETOS, MERMETS, THE BRIDE, GONTIER, SUNSET, ETC., ARE ALL IN
SPLENDID CONDITION.

Hardy Plants, Carnations, Musa Ensete, &c.

PRICES QUOTED ON APPLICATION.

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54 Sixth Street,

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MUSAS, PALMS AND YUCCAS

We offer the Following, all in Splendid condition for Spring sales. Per Doz

Musa Ensete, 20 inches high.....	\$ 6.00
" " 30 "	14.00
" " 42 "	20.00
Musa Sumatrana, 12 "	7.00
" " 20 "	8.00
Musa Cavendishii, 20 to 25 in. high.....	12.00
" var. Red Barnaco 30 "	12.00
" " 60 "	35.00
Musa var. Orinoco, 30 "	6.00
" " 60 "	15.00
Musa Aloefolia, 20 "	7.00
" " 24 to 30 "	15.00
Oreodoxa regia, 30 to 42 "	\$20 per 100, 3.00
Latania Borbonica 24 in. pots, 3 to 4 leaves.....	\$20 per 100
" " from flats, 2 to 4 leaves.....	\$3.50 per 100

200,000 Palms in stock. Send for Catalogue of everything we grow.

R. D. HOYT,

The Seven Oaks Nurseries, BAY VIEW, FLORIDA.
Mention American Florist.

Two Hardy Perennials, FOR FLORISTS' CUT FLOWERS.

COREOPSIS LANCEOLATA—Golden yellow, long stems; desirable for cutting. Blooms until frost, if flowers are cut as they mature.

LYSIMACHIA CLETHROIDES—Long recurved spikes of white flowers nearly all summer. Good for floral designs. Beautiful autumn foliage.

Each, 15c.; Doz. \$1.00; 100, \$6.00.

J. T. TEMPLE,

North Brady Street and Temple Lane,

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ROSES.

Good strong young 2-inch pot plants at \$30 per 100; strictly our selection of Teas, Hybrid Teas, and Noisettes, true to name and good varieties. Gen'l Jacqueminot, at \$5 per 100, \$40 per 1000.
GERANIUMS.—Good varieties, our selection, at \$30 per 100. Single and double. Mme. Sallerol, at \$1 per 100. **ROSE GERANIUMS**, \$3 per 100.
FERNS.—Adiantum Cuneatum, and Adiantum Decorum, from 3-inch pots, at \$8 per 100.
LATANIA BORBONICA.—5-inch pot plants, at \$4 per dozen; 4-inch pot plants, \$3 per dozen.
AMPELOPSIS VEITCHII.—One year old plants, at \$6 per 100.
FUCHSIAS.—Good varieties, 2-in. pots, \$3 per 100.
COLEUS.—25 best varieties, \$3 per 100.
CYTISUS.—2-inch, \$4 per 100.
PANSIES.—\$2 50 per 100; \$20 per 1000.
CARNATIONS.—6 good varieties, \$3 per 100.
VINCA VARIEGATA.—2 in. pot plants, \$3 per 100.
HARRISONII, 2 in. " \$3 per 100.
PETUNIAS.—Double, 12 varieties, at \$4 per 100.

GEO. W. MILLER,
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ROSES.

A very large stock of young roses of the leading bedding and forcing varieties. Also large stock of same in 5 to 6-in. pots.

The best and newest of **CHRYSANTHEMUMS, CARNATIONS**, and a general greenhouse stock.

Also a fine stock of **ALLAMANDA HENDERSONII** AND **GRAND DUKE JASMINE**, in 2½ and 3-inch pots, at 60¢ and \$8.00 per hundred.

TRADE LIST ON APPLICATION.

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LOUISVILLE, KY.

ROSES.

LA FRANCE.....	Per 100 \$ 5.00
GONTIERS.....	5 00
PERLES.....	5 00
NIPHETOS.....	5 00
MERMETS.....	5 00
SOUVENIR DE WOOTTON....	10 00

These plants are in 2½-inch pots.

JORDAN FLORAL CO.,

706 Olive St., ST. LOUIS, MO.

100,000 ROSES 100,000

We have doubled our facilities for growing Roses of all sizes, and will be glad to price your lists whenever and whatever you may need. Three acres under glass. Most complete and most select collection in every department. Send for Wholesale and Retail Descriptive Catalogue.

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LOUISVILLE, KY.

ROSES.

We are now taking orders for delivery after May 15, on the following vars. 3 and 4-in. pots:
AM. BEAUTY, LA FRANCE, PERLE, NIPHETOS, ROSE DE LYON, AND BRIDE AND BENNETT.

From now until then we will continue to fill orders on same varieties from 2½-in. pots, same as heretofore. Correspondence solicited. Address

GERMOND & COSGROVE,
Box 69, SPARKILL, ROCKLAND CO., N. Y.

IMPORTED H. P. ROSES,

Worked low on the Manettia Stock, offer the best results to the florist, blooming freely and giving plenty of cuttings for propagating quickly. Fine plants for sale by the 100 or 1000 at low rates.

Price Lists to applicants. Address

WILLIAM H. SPOONER,
JAMAICA PLAIN, (Boston), MASS.

The New Rose CLIMBING NIPHETOS,

READY APRIL 1st. Price, \$1 each; \$10 per doz. Any one having a space for a climbing rose should have it. Also fine healthy stock of Perles, Niphetos, Mermets, Brides, Gontiers and Bonas. Prices on application.

SALTER BROS.,
42 W. Main Street, ROCHESTER, N. Y.

ROSES FOR FLORISTS.

We offer the largest and most complete stock of Roses in this country, straight 2½-inch plants, propagated from thoroughly matured field grown plants, and grown in ordinary soil without manure or any other stimulating material whatever.

OUR ROSES RESIST DISEASE, START QUICKLY, GROW RAPIDLY, AND ALWAYS GIVE BEST RESULTS.

NEW AND SCARCE ROSES OF SPECIAL VALUE: **THE QUEEN**, best pure white Ever-bloomer for all purposes. **DOCTEUR REYMOND**, new hardy crimson, ever-bloomer. **COMTESS JULIA HUNYADY**, superb golden amber. **SAPHRO**, New English Tea. **MME. HOSTE**, best new forcing rose. **JOSEPH METRAL**, CAPT. LEFORT, **KENNET METZ**, **MRS. ETTIE BROWNLOW**, **METEOR**, **MME. DE WATTEVILLE**, **MME. CUSIN**, **BARONESS M. WERNER**, **SUNSET**, **VISCOUNTESS OF FOLKESTONE**, **PAPA GONTIER**, and hundreds of others. All the choicest and best varieties, new and old. **DUCHESS OF ALBANY**, the famous Red La France. **GLOIRE DE MARGOTTIN**, new scarlet perpetual. **EARL OF DUFFERIN**, **SILVER QUEEN**, **BARONESS ROTHSCHILD**, **MME. GABRIEL LIZET**, **MERVEILLE DE LYON**, **MME. MASON**, **MRS. JOHN LANG**, **DUNMORE**, **PAUL SHERON**, **LA FRANCE**, **COU-TE DES ALPS**, and all the best Hardy Roses.

NEW POLYANTHUS, NEW HYBRID TEAS, CLIMBERS and MOSSES. OVER 500 VARIETIES ROSES IN STOCK. send your lists and have them priced. We want your orders, and will make prices as low as possible.

HYDRANGEA GRANDIFLORA.—A leading specialty. Large stock strong open ground plants, all sizes at very reasonable prices. All the newest and best hardy, ornamental shrubs. New Hardy Hibiscus, New Althea Blanche, Viburnum Platanum, Buists variegated Althea, New Deutzias, New Weigela, Sweet Scented Honeysuckles, New Chinese White and other Wisterias, Clematis, Akedias, and all best Hardy Climbing Vines. **VERY LOW.**

CHRYSANTHEMUMS in 100 finest selected sorts. **MOON FLOWERS**, extra strong, propagated from blooming plants, finest Summer Flowering Bulbs, Gladiolus, Tuberoses, and Japan Lilies. **FLOWER SEEDS FOR FLORISTS**, including the celebrated Imperial German Pansies in 35 separate shades, and all choicest strains of Flower seeds for florists' use.

Satisfaction guaranteed. **WHOLESALE PRICE LIST FREE ON APPLICATION TO FLORISTS, MARKET GARDENERS and DEALERS ONLY.**

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ROSES A SPECIALTY. ROSES.

THE CLIMBING PERLE DES JARDINS.

TO OUR PATRONS, AND THE TRADE GENERALLY:—We are convinced that this Rose will prove of permanent value—indoors and out. Its continuity of flowering, vigorous growth, large flowers, beautiful in color and form—a true Tea—must commend it to all.

Strong plants Ready April 1st, \$1.00 each; \$10.00 per dozen.

All the Old, New and Forcing varieties on hand, at lowest prices.

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THE OAKS ROSE NURSERIES

ROSES.

Meteor, Mme. Cusin, Perles, Niphetos, Mme. de Watteville, Brides, Papa Gontier, Mermets, Magna Charta, and Gen. Jacqueminot.

CARNATIONS.

Hinsdale, May Queen, Orient, Silver Spray, Paxton and Buttercup
 Strong healthy plants at lowest prices. Write for particulars.

JOHN H. TAYLOR,

BAYSIDE, L. I., N. Y.

ROSES. ROSES.

INCLUDING THE SPLENDID NEW VARIETIES

DUCHESSE OF ALBANY, MADAME HOSTE, ETC.

ALSO ALL THE BEST STANDARD VARIETIES OF

TEAS, HYBRID TEAS & HYBRID REMONTANTS.

ALSO ALL THE BEST BEDDING VARIETIES.

I AM now prepared to fill orders for the same in Large or Small quantities, TO THE TRADE, from stock that cannot be surpassed by any in the country, at prices that are as reasonable as first-class can be produced for. Also MIGNONETTE SEED, MY OWN SELECTION.

TRADE LIST NOW READY.

JOHN N. MAY, Summit, N. J.

Roses. Roses.

Madam Cusin, Madam de Watteville, Catherine Mermet, Bride, American Beauty, Papa Gontier, Perle, La France, Niphetos, Bon Silene. Fine, clean, healthy stock only sent.

COLEUS CUTTINGS.

STRONG ROOTED CUTTINGS OFF YOUNG PLANTS, only \$7.00 per Thousand.
 GOLDEN BEDDER alone, \$10.00 per Thousand.

FRANK McMAHON, Sea Bright, N. J.

THE AMERICAN FLORIST

Subscription \$1.00 a year. To Europe, \$1.50.

Advertisements, to Cents a Line, A day;
Inch, \$1.40; Column, \$14.00.
Cash with Order.

No Special Position Guaranteed,
Discounts, 3 months, 5 per cent; 6 months, 10 per
cent; 12 months, 20 per cent.
No reduction made for large space.

The Advertising Department of the AMERICAN
FLORIST is for Florists, Seedsmen, and dealers in
wares pertaining to those lines ONLY. Please to
remember it.

Orders for less than one-half inch space not accepted.

☐ Advertisements for May 15 issue must
REACH US by noon, May 9. Address

THE AMERICAN FLORIST CO., Chicago.

THE FLORISTS' CLUB of Philadelphia has appointed a committee to purchase property upon which to build a suitable club house. It is proposed to have a library, meeting and reading room, and a banquet hall, also rooms for billiard tables and a bowling alley. It is also intended to make the clubhouse a central exchange for all kinds of florists' supplies, and bulletin boards are to be placed in every room, on which members can give notice of stock wanted or for sale. It is also proposed to establish there a wholesale cut flower market and endeavor to induce certain classes of the trade, such as basket makers and wire workers to locate there.

THE SECRETARY of AGRICULTURE has issued a circular, No. 5 of the Forestry Division, giving instructions on tree-planting for purposes of Arbor Day. The circular which is a reprint of one compiled last year by Prof. B. E. Fernow, chief of that division, is intended primarily for use in eastern states, but the general principles stated to be observed in the choice of trees, the treatment before transplanting, the method of planting and after-care are applicable everywhere, the only difference for other regions being the choice of season and of kinds to be planted.

WILL Chicago size up to the World's Fair? That is a question often asked, and answered according to personal prejudice, mostly. Our concern is that the "windy city" gives horticulture its proper place in the fair, to do which she will have to "get a move on," in slang phrase, pretty soon.—*N. Y. Trade Journal*

Would the T. J. kindly mention some nice American city which today has more of a "move on" in a public horticultural way than Chicago? A short list will do.

WE HAVE RECEIVED from Mr. A. S. Lowden, Pittsfield, Mass., a leaf of the spotted calla (*Richardia albo-maculata*), the lower part of the blade of which is almost pure white, while the point still retains its normal appearance. A flower is also sent which has an abortive leaf springing from the base of the spadix, the flower being otherwise perfect. It is of interest merely as additional evidence to support the theory that the parts of a flower are simply changed leaves.

A NEWSPAPER correspondent states that "Eastern capitalists" are making preparations to place Florida out door grown flowers in northern markets, and describes the scheme as one "That promises millions for the nurseries of the south." In the meantime southern florists continue to send north for fine roses and similar flowers because they can not secure sufficient stock of first quality at home during the same periods that flowers are scarce at the north.

THAT ever shifting, ever stretching "hail belt" has again displayed its remarkable elasticity. As if to prove its capability in this direction it drops an icy reminder on St. Louis and Baltimore almost simultaneously. The "belt" is quite as ubiquitous as the oft described "sea serpent" or the shadow of the "Flying Dutchman" on the high seas.

IT IS NOTABLE that in the numerous reports of glass broken by hail, the almost invariable conclusion is "No insurance." Seems as though the members of the Florists' Hail Association have a mascot at that organization. Certainly those belonging to the Association have been remarkably fortunate in escaping losses.

IMPORT DUTY ON PLANTS.—There seems to be some difference of opinion as to the advisability of an import duty upon plants as proposed in the bill now before Congress. It is to be hoped that all have made use of the blank mailed in last issue, to express their opinion to their Congressmen—the men whose votes will determine the matter.

CHRYSANTHEMUM "Orange Beauty" is the name given by F. Morat's Sons & Co., Louisville, Ky., to a new chrysanthemum of which they have sent us specimen flowers. The blooms are about three inches in diameter, well formed, of an orange yellow shade, and borne in clusters. It gives promise of being useful.

REGARDING the craze for rare varieties among wealthy collectors of orchids, a factious Frenchman, after an examination of several great rarities, declared that "The uglier they are, the lovelier they are."

ORCHID JEWELRY is the latest novelty, a leading New York firm having reproduced a great variety of orchids in silver and gold decorated with gems. The color and form is described as remarkably accurate.

THE Biological School of the University of Pennsylvania boasts of 50,000 botanical specimens.

IT IS PROPOSED to establish at Washington a national park to contain thousand acres.

Catalogues Received.

G. J. Lambrigger, Big Horn City, Wyo., seeds; Nagel Greenhouses, Minneapolis, Minn., plants and floral work; E. H. Hunt, Chicago, florists supplies; W. J. Hesser, Plattsmouth, Neb., plants; Daniel Lee, Madison, O., plants, seeds and nursery stock; V. Lemoine et Fils, Nancy, France, plants; Mendenhall Greenhouses, Minneapolis, plants and seeds; W. & J. Birkenhead, Sale, Manchester, England, ferns and selaginellas; Harkett's Floral Nursery, Dubuque, Ia., plants; L. Pillsbury, Macomb, Ill., plants; Hulsebosch Bros., Overveen, Holland, Dutch bulbs and plants; Louis Bochner, Yokohama, Japan, bulbs, plants and seeds; Henry A. Dreer, Philadelphia, plants, seeds and bulbs; C. Strauss & Co., Washington, D.C., roses; G. V. Van Zanten & Co., Hillegom, Holland, Dutch bulbs; H. H. Berger & Co., San Francisco, Cal., bulbs and plants; A. M. C. Jonkindt Coninck, Dedensvaart, Holland, plants and nursery stock; D. B. Long, Buffalo, N. Y., floral photographs; Wm. Clappelow, Monrovia, Cal., plants and nursery stock; W. W. Greer Son & Sayles, Watertown, N. Y., plants and bulbs; Wm. Paul & Son, Waltham Cross, Herts, England, roses and other plants.

Insects and Diseases.

Conducted by CHARLES F. BAKER, Agricultural College P. O., Ingham Co., Mich.
Send specimens of unidentified insects and diseased plants to him at above address.

Julidae and Wireworms.

Mr. W. L. Morris, of Des Moines, Ia., recently sent to the Am. Florist office some "worms" which he had found under pots and flats in the greenhouse. In places they were found to have injured the tubers of begonias. They were myriapods, commonly called "thousand legged" or "galley worms" and belonged to the family Julidae. These have a cylindrical body, with two pairs of legs to every segment except the first three. The entire number of legs may be anywhere from 150 to 240. Most of the species are beneficial, feeding on injurious insects and decaying vegetable matter, but some are injurious to cabbages, potted plants, the roots of wheat, tubers, garden flowers and many other plants, although they are scarce.

Their minute eggs are laid from Christmas to the middle of spring, near any decaying vegetable matter. They frequent dark and damp places and when disturbed coil themselves into a spiral like a watch spring, at the same time emitting a strong odor. This odor is produced by glands inside of the body, the openings of which on the sides resemble the breathing pores, and can be seen only by the aid of a microscope. As it takes two years for them to attain maturity, they can be readily exterminated if the remedies are persistently applied. Artificial heat and hand picking are the most certain. Sprinkling soot on the benches or shelves has been tried with success. Spraying with kerosene or crude oil would also undoubtedly kill these as it has many insects living in similar situations.

The Julidae are often mistaken for wireworms. The wireworms are the larvae of snap beetles, or more properly, elaters, and have long, hard, cylindrical bodies, which are pale testaceous or yellowish red in color. They have only six true legs, and a slight anal pro leg. The body is flattened towards the head and tail. Their habits being so well known, the remedies so many and varied, that as the florist rarely has them to deal with they will not be discussed further here.

Duty on Bulbs—A Test Case.

Florists from all over the city and out of town crowded the United States Circuit Court room, where Judge Lacombe was sitting yesterday afternoon trying the test case of August Rolker's Sons against the government, to recover \$2,700 which they claimed had been illegally collected from them by Collector Daniel Magone as duty on certain importations of flower bulbs.

This firm imports thousands of bulbs of hyacinths, gladioli, daffodils, tulips and the like, on which the collector has exacted a duty of 25 per cent, claiming that they should be classified as "bulbous roots that are not medicinal." The Rolkers brought suit to recover on the ground that the bulbs should be admitted free, as they were "bulbs not edible nor advanced in value by process of manufacture," which the tariff act says are not dutiable.

The jury returned a verdict for the government.—*New York Herald, April 22.*

THOS. YOUNG, JR., WHOLESALE FLORIST

20 West 24th Street,

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LILY OF THE VALLEY,

And the Choicest ROSES for the
fall and winter season.
Mention American Florist.

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ESTABLISHED 1877.

Price List sent upon application.

W. F. SHERIDAN, Wholesale and Commission Dealer in CUT FLOWERS,

No. 32 W. 30TH ST., NEW YORK.

Orders to be shipped will receive prompt attention.

EDWARD C. HORAN, WHOLESALE FLORIST,

34 WEST 29TH STREET,

The Bride, Mornet,
and Am. Beauties,
SPECIALTIES.

NEW YORK.

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CUT FLOWERS,

51 West 30th St., NEW YORK.

W. A. JURGENS, WHOLESALE FLORIST

27 Union Square, NEW YORK.

N. F. MCCARTHY & CO. WHOLESALE FLORISTS

AND JOBBERS IN FLORISTS' SUPPLIES.

1 Music Hall Place, BOSTON, MASS.

Also entrance from Hamilton Place
through Music Hall.

We keep a large supply of Fancies and Carna-
tions always on hand. Return telegrams sent
immediately when unable to fill orders.

AUCTION SALES OF PLANTS SPRING AND FALL
Mention American Florist.

1890 DIRECTORY.

Every Florist, Nurseryman and
Seedsman should have one.

AMERICAN FLORIST CO., Chicago.

Wholesale Market.

Cut Flowers.

	BOSTON, April 26.
Roses, Texas.....	\$1.00 @ \$2.00
" Fancy.....	2.00 @ 5.00
" Jacqs and Hybrids.....	10.00 @ 15.00
Carnations.....	1.00 @ 3.00
Violets, Fancies.....	4.00 @ 5.00
Candids.....	6.00 @ 8.00
Harrill.....	6.00 @ 8.00
Health.....	4.00
Stocks, spikes.....	2.00
Mignonette.....	1.00 @ 2.00
Smilax.....	15.00 @ 25.00
Adiantums.....	1.50

	PHILADELPHIA, April 25
Roses, Hybrids.....	\$2.00 @ 25.00
" Beauties.....	15.00 @ 25.00
La France.....	5.00 @ 10.00
Mornets, Brides.....	4.00 @ 5.00
Jacqs.....	10.00
Bennetts.....	6.00
" Series, Niphetos.....	4.00
Cusins, Watteilles.....	6.00
Carnations, long.....	1.00
Carnations, short.....	2.00
Mignonette.....	2.00
Violets, double.....	.35 @ 2.00
Sweet Peas.....	4.00
Tulips.....	30.00 @ 25.00
Adiantums.....	1.00

	NEW YORK, April 26.
Roses, Bon Silence.....	\$1.00 @ \$2.00
" Contiers.....	2.00 @ 3.00
" Perles, Niphetos, Sunsets.....	5.00
" Mornets, Brides, Cusins.....	5.00
" Watteilles, Hones.....	5.00
" Bennetts.....	5.00
" La France.....	5.00
" Series, Niphetos.....	5.00
" Beauties.....	5.00
" Jacqs.....	10.00 @ 25.00
" City Brides.....	25.00
Smilax.....	2.00
Carnations, long.....	2.00
" Mignonette.....	4.00
" Valley, tulips.....	10.00
" Harrill lilies.....	10.00
" Violets.....	10.00
Adiantums.....	1.50
Lilac, per bunch.....	1.00 @ 2.00

	CHICAGO, April 28.
Roses, Perles, Niphetos.....	\$3.50 @ \$5.00
" Contiers.....	1.00 @ 5.00
" Bon Silence.....	2.00 @ 3.00
" Mornets, La France.....	5.00 @ 8.00
" Brides.....	5.00 @ 8.00
" Am. Beauties.....	12.00 @ 15.00
" Jacqs.....	10.00 @ 15.00
" Bennetts.....	5.00 @ 8.00
Carnations, short.....	1.25 @ 1.50
Carnations, long.....	1.25 @ 2.00
Cusins, long, fancy.....	8.00 @ 12.00
Harrill.....	12.00 @ 15.00
Candids, long.....	4.00 @ 5.00
Candids, short.....	4.00
Smilax.....	21.00 @ 25.00
Romans, Adolphi Valley.....	4.00 @ 5.00
Tulips.....	4.00 @ 8.00
Violets.....	.50 @ 1.00
Dutch hyacinths.....	5.00 @ 8.00
Adiantums.....	1.25 @ 1.50

WM. J. STEWART, Cut Flowers & Florists' Supplies

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67 BROMFIELD ST., BOSTON, MASS.

Mention American Florist.

GEO. MULLEN, WHOLESALE FLORIST.

Florists' Supplies Always in Stock.

17 CHAPMAN PLACE,

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BOSTON, MASS.

Orders by Mail, Telegraph, Telephone or Express promptly filled.

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WELCH BROS., WHOLESALE FLORISTS,

165 Tremont Street, BOSTON, MASS.

We make a specialty of shipping choice Roses and
other flowers, carefully packed, to all points in
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Return Telegram is sent immediately when it
is impossible to fill your order.

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ROSE BUGS IN ANY QUANTITY SHIPPED
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VAUGHAN'S CUT FLOWER DEPT.

Our stock is cut with special reference to ship-
ping trade, which comprises the greater part of
our business. We therefore claim that we are
better prepared to attend to the wants of FLOWER
BUYERS, outside of Chicago, than any house in
the West.

OPEN DAILY: (Week days till 9 P. M.
Sundays till 2 P. M.)

KENNICOTT BROS., WHOLESALE FLORISTS, 27 Washington Street, CHICAGO.

We always have choice, Fresh Cut Flowers in sea-
son. The best packers in the trade. We are pre-
pared to ship. Store open until 9 P. M. Sundays un-
til 2 P. M.

WIRE WORK A SPECIALTY.
Extra designs made to order. Write for price list.
Consignments Solicited, Telephone 466.

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AND DEALER IN

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CHICAGO,

Store Open Day and Night.

I keep a full stock of
WIRE DESIGNS
of superior workmanship and at lowest prices. Ex-
tra pieces of any description made to order on short-
est notice. Send for Catalogue.
Mention American Florist.

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And Florists' Supplies.

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J. L. DILLON, BLOOMSBURG, PA.

Montreal.

The spring exhibition of the Montreal Florists' and Gardeners' Club was a most creditable one, but the attendance was not what it should have been. Following is the list of prize winners:

- Six stove or greenhouse foliage plants—W. Wilshire, gardener to the Hon. J. J. C. Abbott, 1; John M. Kirkwood, gardener to Mr. R. B. Angus, 2; John Walsh, gardener to Mr. W. W. Ogilvie, 3.
- Six stove or greenhouse flowering plants—W. Wilshire 1; John Kirkwood 2; Jules Beatrix, gardener to Mr. And. Allen, 3.
- Six decorative plants in flower suitable for table—John Kirkwood 1; John Walsh 2.
- Three orchids—W. Wilshire 1; J. Walsh 2.
- Three orchids—W. Wilshire 1; W. Bell, gardener to Mackay, Kidonan Hall, 2.
- Specimen orchid—W. Wilshire 1; J. Kirkwood 2; J. Beatrix 3.
- Collection of flowering bulbs—Joseph Bennett 1; Wilshire Bros. 2.
- Collection of flowering bulbs, not to exceed 18 pots—John Bland, gardener to Mr. James Burney 1; J. Kirkwood 2; W. J. Horsman, gardener to the late Mr. Andrew Robertson 3.
- Three single hyacinths, distinct varieties—Joseph Bennett 1.
- Collection of hyacinths, not less than ten varieties—J. Bland 1; J. Bennett 2.
- Six tulips, single or double—J. Bland 1; J. Bennett 2.
- Collection of tulips, not less than 12 pots—J. Bennett 1.
- Three pots narcissus—J. Bennett 1; J. Bland 2.
- Two pots lily of the valley—J. Bennett 2; J. Bland 3.
- Two Spirea Japonica—J. S. Murray 1; J. Walsh 2; J. Kirkwood 3.
- Six Lilium Harrisii—J. Bland 1.
- Three Lilium Harrisii—J. Bland 2.
- Specimen Lilium Harrisii—J. S. Murray 1.
- Two calla lilies—W. J. Horsman 1; J. Beatrix 2.
- Specimen anemone—J. Beatrix 1; J. Bland 2; J. Eddy, gardener to Mrs. Kedpath, 3.
- Two cinerarias—J. Beatrix 1; James Hockey, gardener to Mr. J. Molson, 2.
- Six cinerarias—James Hockey 3.
- Six Primula sinensis—Wm. Bell 1; James Hockey 3.
- Two Primula sinensis—W. Bell 1; J. Horsman 2; James Hockey 3.
- Two Primula obconica—John Walsh 1; P. McKenna & Sons 2; J. Beatrix 3.
- Six Primula obconica—J. Bennett 1; P. McKenna & Sons 2; J. Walsh 3.
- Three pelargoniums—John Horsman 1; J. Kirkwood 2.
- Three zonal pelargoniums, double—James Hockey 3.
- Six roses—Jos. Bennett 1; Wilshire Bros. 2.
- Three azaleas—J. Walsh 1; Wilshire Bros. 2; James Hockey 3.
- Specimen azalea—Wilshire Bros. 1; W. Bell 2; J. Beatrix 3.
- Three glorioxias—Walter Wood 1; J. Bennett 2.
- Three Deutzia gracilis—J. Bland 1; J. Walsh 2.
- Specimen Deutzia gracilis—J. Bland 1.
- Three hydrangeas—John Kirkwood 1.
- Specimen hydrangea—John Kirkwood 1.
- Three begonias, flowering—W. Wilshire 1; J. Eddy 2; J. Walsh 3.
- Three begonias, foliage—C. Van Moorhien 1; J. Horsman 2; J. Eddy 3.
- Specimen Dicyclia spectabilis—J. Bland 1; J. Walsh 2.
- Specimen imantophyllum—W. Bell 1; J. Eddy 2.
- Three mignonette—J. Horsman 1; J. Kirkwood 2; W. Bell 3.
- Specimen oxalis—J. Eddy 3.
- Specimen rhododendron—J. Bland 1.
- Hanging basket—J. Bland 1; A. Pinoteau 2.
- Hanging basket of ferns—W. Ward 1.
- Collection of cut carnations—J. Bennett 1.
- Six varieties of cut tea roses—P. McKenna & Sons 1; J. Bennett 2.
- Collection of cut roses, three blooms of each—J. Bennett 1; P. McKenna & Sons 2.
- The gold medal prize for the best display of flowering bulbs was awarded to Mr. J. Bennett, florist.
- The silver medal for the best display of flowering bulbs, open to gardeners, was awarded to Mr. J. Bland, gardener to Mr. J. Burnett.
- The bronze medal for the best display of hyacinths in pots was awarded to Mr. J. Bennett.

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Achyranthus, 2 varieties.	Per 100 \$3 00
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ROSES—Jacks, Perles, Mermet, Papa Gontier, Niphotos, La France, Cook, Suisse, Safrano, S. J. Ami, Ben Silem, Bessie, and 14 other sorts.

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Coleus, assorted varieties, plants.	1.50
Tuberous bulbs, double, lat. size, \$10.00 per 1000	
" " 1 to 2 inch.	2.00
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Spiraea (Astilbe) Japonica Aurea Reti-
culata.

I had a quantity of the golden variegated *spirea* in bloom this Easter and would say that as a pot plant it surpasses the green variety in every respect. Not only does the variegated foliage improve the general appearance of the plant, but the numerous flower spikes are also more robust and of greater size, under the same treatment, the same soil and grown in the same house with the green ones. I merely write this as a hint to some of our florists who have given up growing any *spirea*. There is certainly a far better chance for the variegated form to sell than for the green one, for the plant looks grand even without the flowers and the foliage keeps the golden yellow color in all the veins for months until the scorching August sun bleaches the yellow into almost white.

Rochester, N. Y. JOHN B. KELLER.

Araucaria Imbricata.

In the AM. FLORIST of March 1 appears a report of a paper read by Mr. S. Henshaw before the New York Florist Club. Mr. Henshaw makes an error, I think, when he states that *Araucaria imbricata* is a native of Norfolk Island, as it is a native of Chili and generally known as the Chilean Pine. *A. imbricata* and *A. brasiliensis* being the two natives of the American continent. *A. excelsa* is the true Norfolk Island Pine. *A. Bidwillii*, *A. Cookii*, *A. Cunninghamii* and *A. Rupei* all come from Australia and that part of the world.

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50 EXTRA FINE VARIETIES.

	Per 100	Per 1000
Dry Roots.....	\$ 6.00	\$50 00
Green Plants.....	5 00	40 00
Coleus.....	3 00	25 00
Alternanthera, 8 kinds.....	3 00	25 00
Hydrangea, T. Hoga and Otaka.....	5 00	75 00
Hibiscus, fine plants.....	10 00	80 00
New French Cannas.....	20 00	175 00
Canna, mixed.....	2 00	25 00
Geraniums, fine collection, 3-in. pots.....	5 00	25 00
Carnations.....	\$3.00 and 4 00	
Callas.....	\$3.00, \$5 00, \$8.00 and 20 00	

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White Roman Hyacinths, Light Pink, Dark Pink, White Italian, White of the Mountain, Single Blue, Yellow, Liliun Candidum, Narcissus Totus Albus (Paper White), Double Roman, Jonquils, Allium Neapolitanum, Ornithogalum Arabicum, Etc., Etc.

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EXTRA QUALITY AT REASONABLE PRICES.

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SEGERS BROTHERS,
WHOLESALE BULB GROWERS,
LISSE, near Haarlem, HOLLAND.

FORGING BULBS

Summer and Fall Delivery
such as

ROMAN HYACINTHS

Narcissus, Lilium Candidum,
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Lily of the Valley, Freesia,
Dutch Hyacinths and
Tulips, Etc.

SPECIAL PRICE LIST

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LARGEST GROWERS OF

HYACINTHS, TULIPS, NAR-
CISSUS, SPIRÆA, LILIES

OF THE VALLEY, ETC.

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HILLEGOM, HOLLAND.

Headquarters for the Best

Hyacinths, Tulips, Narcissus, Etc.

Catalogue free. Apply to

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16 & 18 Exchange Place, New York City.

SMILAX SEED.

New crop ready June 1.

A. L. OGILVIE,

Box 128, LOS ANGELES, CALIFORNIA.

BOUVARDIA PLANTS,

For Spring setting. Davisoni, white; Elegans, sal-
mon pink; Pres. Garfield, double pink; Alfred New-
ner, double white; strong, healthy plants from 2-in.
pots, ready May 1st, at \$1 per 100. Cash with order.

SAM'L NICHOLS,

COHASSET, MASS.

Spring Bulbs, Etc.

SPECIAL OFFER. Per 100 Per 1000

GLADIOLUS, Gandavensis Seedlings, large bulbs, from choicest col.	2.00	20.00
" " shades of scarlet & crimson.	1.25	8 00
" " pink and var.	2.00	15.00
" " white and light.	2.50	25 00
" " yellow	2.25	20 00
" " best mixed, all colors	1.50	11.10
Calistolia "The Bride," for forcing	2.00	
" " Snow White (novelty) doz. \$2 50,	15.00	
Hyacinthus Candicans, large bulbs.	2.00	15 00
TUBEROSES, Pearl or Excelsior		
Pearl, large, well cured bulbs.	1.75	12 00
Good flowering sizes.	1.25	9 00
Per doz		
Cannas in finest mixture	5.00	75
" " Rhemannii and Noutou.	15.00	2 00
Caladium Esculentum, 2 1/2 in. diam.	6.00	1.00
and upward	2.00	.50
Anemones in fine sort	1.50	.25
" " mixture	1.00	.15
Ranunculus, fine mixture	2.50	.40
Aplos tuberosa, beautiful climber	2.00	.30
Madeira Vine, large tubers, per bbl \$6.00.	3.00	.50
Cinnamon Vine, large tubers	3.00	.50
Aurido Donax Variegata	15.00	2.00
Arthrum Liliastrium, or "St. Bruno's Lily"	20.00	3.00
Cooperia Drummondii	4.00	.60
" " Pedunculata	5.00	.75
Dahlias, large ground roots, in fine soil	14.00	2.00
large ground roots, in separate colors.	10.00	1.50
Oxalis Deppe for edging	1.00	.25
Nympha odorata, large roots	5.00	.75
Caeti, for bedding, in 10 or more good sorts, nice specimens	10.00	1.50
For other SPRING BULBS FLOWER SEEDS (fresh crop only), FLORISTS' SUPPLIES, PORCELAIN FLOWERS, etc see Catalogue.		

Orders for FALL BULBS now booked. Estima-
tes promptly furnished. Catalogues free to
applicants. ADDRESS

J. A. De VEER,

Agent for Foreign Bulb and Seed Growers,
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18 Burling Slip, NEW YORK.

(REMOVED FROM 183 WATER ST.)

TUBEROSE BULBS.

100,000 Tuberose Bulbs.

100 BALS DEER TONGUE or VANILLA.

Now Ready for Delivery.

Samples sent on application. Correspondence
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TRY DREER'S GARDEN SEEDS

Plants, Bulbs, and
Requisites. They are the
best at the lowest prices.
TRADE LIST issued quar-
terly, mailed free to the
trade only.

HENRY A. DREER,

Philadelphia.

Mention American Florist.

NARCISSUS.

An immense collection and an enormous stock
of all the leading varieties, especially of those
adapted for forcing. Many acres of stock now in
flower, and I expect I shall have at least

A MILLION

of fine forcing roots to offer this season, and shall
be pleased to give prices for any variety for **EARLY
FALL** Delivery. A preliminary list has been sent
to my customers, and my General Trade Cata-
logue will be ready shortly.

CLEMATIS.

My stock for Fall delivery will be much heavier
than previous seasons. The varieties consist of
all the best kinds and may be relied upon. Also
many other varieties of Hardy and Half Hardy
Climbers.

PYRETHRUMS.

Many thousands of these are grown and form
one of the most important families of my Florist
Flower Department. Also Carnations, Phloxes,
Delphiniums, Pansies, Pinks, Hollyhocks, etc.

HERBACEOUS PLANTS.

The increasing demand for this group, both at
home and abroad, has necessitated my adding
several acres of fresh stock, in addition to my
usual stock which is immense. Every good hardy
plant is grown in large quantities, and I shall be
pleased to quote prices for anything required.

DAHLIAS.

An extraordinarily complete collection, every
variety of every section worth cultivating will be
found described in my Retail Catalogue, published
in April. Trade list of Pot Roots published in
the Autumn.

HARDY BULBS.

Many acres grown, forming the most important
branch of my Establishment. Anemones, Lilies,
Chionodoxa, Gladiolus, Begonias, Montbretias,
and hundreds of other families too numerous to
mention here.

INDUSTRY GOOSEBERRY.

I have a good stock of this for Fall delivery, and
shall be pleased to quote lowest price upon applica-
tion.

CHRYSANTHEMUMS.

Every variety up to date, including English and
Continental, full descriptions of which will be
found in my numerous Catalogues, which may be
had on application.

THOMAS S. WARE,

Hole Farm Nurseries, TOTTENHAM, LONDON, ENGLAND.

HULSEBOSCH BROS.,

—GROWERS OF—

DUTCH BULBS, FLOWER ROOTS & PLANTS

OVERVEEN, near Haarlem, HOLLAND.

Offer to the Trade as usual all kinds of the best

Hyacinths, Tulips, Crocus, Lilies

Narcissus, Roses, Azaleas,

Rhododendrons, &c., &c.

Catalogues free on application to

A. HULSEBOSCH,

P. O. Box 3118. NEW YORK CITY.

Hail Insurance.

THE EXTRA ASSESSMENT PLAN.

The efficiency of the extra assessment plan adopted by the members of the Florists Hail Association at Buffalo has been tested. Newby & Co., of Logansport, Ind., took out an extra whole assessment on their double thick glass, and their loss of 108 square feet of glass, on April 8th, was promptly paid for by the treasurer of the Association at the double rate of 14 cents per square foot. It looks very much as though the problem of plant insurance has been solved. So far, every step taken by the directors has been successful, and the machinery of the Florists' Hail Association works without the slightest friction. Sixteen new members were added the first twenty days in April.

JOHN G. ESLER.

Duty on Wheat Sheaves.

The New York *Herald* of April 18, says: "In the test case of Donat & Mishel, of No. 130 Greene street, against the government regarding the duty to be paid on bleached sheaves of rye, oats, barley and other grasses used for decorative purposes by florists, a jury in the United States Circuit Court brought in a verdict for the plaintiffs yesterday. The verdict is quite a victory for the florists."

PLANTS FOR THE SEASON.

During the bedding season many large plants are often required for baskets and piazzas. Special cheap list as follows. All will be found fine plants for immediate sale. ALL IN FIRST-CLASS CONDITION.

Palms.

- 12 Handsome plants, 1½ to 3 feet, in 5 and 6 inch pots fit for 7 inch now, 6 distinct sorts, \$5.00.
12 *Dracena Indivisa*, 6-inch pots, 2½ feet and over high, \$5.00.
12 Crotons, highly colored, 1½ feet, \$5.00.
12 *Gardenias* (Cape jasmine), 12 to 15 large buds just opening on each, \$5.00.

Small Plants.

The following will be valuable to all who put them on and fill up houses during Summer after bedding plants are sold. Will make fine plants in a few months.

Ferns.

- Adiantum Cuneatum* (Maidenhair), 2-inch pots, \$4.00
Ferns mixed, 20 best sorts, 2-inch pots, 4.00
" " fine, in 4-inch pots, 8.00

Palms.

- Areca lutescens* 2 inch pots, 1 ft. 10 00
Cocos Weddelliana, store pots, 8 00
Lantana Borbonica, 2-inch pots, 5 00
Phoenix Tennis, 2 inch pots, 6 00

Other Foliage Plants.

- Dracenas*, 20 best sorts, 2-in. pots, 10 00
Crotons, 30 bedding sorts, 2 in. pots, 10 00
Alocasias, Marantas and others, mixed var 10 00

Bedding Plants.

Geraniums, best sorts, from 4 inch pots, \$5 per 100, also *Fuchsias* and *Heliotropes*. Well rooted root cuttings of double and single white and pink *Bouvard* as in mixture, \$10 per 1000.

N. STUDER,

Anacostia P. O., WASHINGTON, D. C.

SMILAX SEEDS.

Per pound, \$10.00; per 100 pounds, \$90.00.

NOW READY.

EUCALYPTUS GLOBULUS, per lb. \$3.

JAMES HUTCHISON,

Established 1852, OAKLAND, CALIFORNIA.

DAHLIA CAMELLIA LORA ALBA, pot grown roots, \$2.00 per dozen; \$20.00 per 100.

JESSAMINE GRAND DUKE, 4-inch pots, \$2.50 per dozen; \$15.00 per 100.

DION EDULE.—Splendid hardy Palm, similar to a Cycas. Nice stems with one leaf, \$3.50 per dozen; \$25.00 per 100.

FICUS ELASTICA, 15 to 18 inches, fine plants, well furnished, \$6.00 to \$50.00 per dozen.

JOHN G. HEINL, Terre Haute, Ind.

CARNATION SEED.

Have just gathered a fine lot of new seed mainly grown on Rosemary, fertilized with BUTTERCUP, GRACE WILDER, ANNA WEBB, CHRISTMAS, and L. L. LAMBORN, that should produce some grand new varieties. 25 cents per pkt., with directions for growing.

NEW CARNATION PINK "J. R. FREEMAN."

Will spare a few PLANTS of this lovely cardinal colored, unusually fragrant, early winter blooming variety, at 35 cents each; \$3.00 per dozen, by mail or express.

CHAS. T. STARR, AVONDALE, Chester Co., PA.

ROOTED CUTTINGS OF CARNATIONS,
GROWN BY THE QUANTITY.

My new seedling, Lady Rachel, deep maroon with variegated shadings; has no competition among existing carnations, very fragrant, of good habit, early bloomer, nearly all on long stems, \$5 per doz., \$30 per 100. Morning Ray, seedling, very fine, of good merit and early, \$5 per doz., \$30 per 100. Mrs. B. Harrison and Amy, seedlings, \$2.50 per doz., \$15 per 100. Wm. Swayne, \$2.50 per 100. L. L. Lamborn, \$2.50 per 100. Petunia, White, apurite, Edwards, \$1.25 per 100. Hinz's White, Snowden, Peter Henderson, Quaker City, Miss. Joliffe, Duke of Orange, Lady Emma, Philadelphia Red, Scarlet King, Portia, Seawan, Chester Field, Hinesdale, \$1.50 per 100. Silver Spray, Grace Wilder, \$2.50 per 100. Grace Garden, Springfield, Sunrise, \$2.50 per 100. Buttercup, \$3 per 100. Florets of the above varieties, \$1.50 per 100. Cash must accompany all orders. Remittances may be made by Money Orders on Kennett Square, or Registered Letter on Toughkenamon Postoffice. I can also furnish the second edition on Carnation Culture, by L. L. Lamborn, on receipt of \$1.50, on application.

ISAAC LARKIN,

Toughkenamon P. O., Chester Co., Pa.

HEADQUARTERS FOR STOCK OF
NEW CARNATIONS

WM. SWAYNE, L. L. LAMBORN, Pure White;
PRIDE OF KENNETT, Dark Crimson.

Send for price list of Rooted Cuttings of these and other leading market sorts.

My Specialty is Carnation Growing.

Stock is true to name and free from disease.

WM. SWAYNE,

P. O. Box 226, KENNETT SQUARE, PA.
Mention American Florist.

CARNATIONS.

Can supply plants from pots or in trays until we plant out.

Hope to have a fine lot of Field-grown plants to offer in the Fall.

Send for Circular.

W. R. SHELWIRE, Avondale, Pa.

CARNATIONS AND VIOLETS.

Rooted Cuttings of Carnations and well Rooted Runners of Violets in any quantity, ready now.

Price on application.

JOS. RENARD,

UNIONVILLE, Chester Co., PA.
Telephone No. 3 Unionville. All telegrams should be sent to WEST CHESTER, PA.

Mention American Florist.

SILVER SPRAY.

Healthy plants, from pots and flats, \$3.50 per 100; \$30.00 per 1000.

CENTURY PLANTS, \$3.00 per 100; \$25 per 1000. CASH WITH ORDER.

J. F. STICKEL,

Lexington Ave., NORTH CAMBRIDGE, MASS.

Choice Stock Cheap.

	Per 100
Geranium in 30 choice varieties, 2-in.	\$5.00
Geranium White Swan, 2-in.	5.00
Rose Geraniums, 2-in.	4.00
Single Primrose, finest strain, 2½ in. 2-in.	4.00
Primula Obconica, 2-in.	4.00
Smilax, strong, 2-in.	1.50
Moon Vines, true large flower, 2-in.	4.00
Abutilons 6 choice varieties, 2-in.	4.00
Lantanas, 4 choice varieties, 2-in.	4.00
Double Alyssum, 2-in.	2.50
Deutzia Crenata, 2-in.	2.50
Begonia rubra alba, strong, 3-in.	6.00
Colours Bedding, 6 choice varieties, 2-in.	3.00
Chrysanthemums, fine varieties, 2-in.	3.00
Heliotropes, 4 best varieties, 2-in.	3.00

25 or 50 of any the above at the 100 rate

Address N. S. GRIFFITH,

JACKSON CO. INDEPENDENCE, MO.

(Independence is well located for shipping, being 8 miles east of Kansas City.)

Mention American Florist.

THE GRAND NEW PINK CARNATION,

"Fred Creighton"

A rival of Grace Wilder, and conceded by experts to be one of the finest pinks ever raised, is now ready.

I have not space to give description here, but just two testimonials.

FISHKILL, N. Y., Feb. 18, 1890.

MR. GEORGE CREIGHTON, Dear Sir:—After a careful inspection of the house of your new seedling pink carnation "Fred Creighton," I am pleased to say they are as healthy and vigorous a lot of plants as I ever saw, and as well set with buds and bloom of the most perfect form and color as the most fastidious could desire. Yours truly,

J. G. BURROW.

36 East 23rd St., NEW YORK, March 3, 1890.

MR. GEORGE CREIGHTON, New Hamburg, N. Y., Dear Sir:—In reply to your favor of March 1 I containe your new carnation "Fred Creighton." I beg to say that I consider it in every way superior to Grace Wilder, both in habit of growth and positive color. It does not have that faded out appearance of Grace Wilder. Its long stems will make it particularly valuable to retailers. Yours truly,

W. S. ALLEN.

GEORGE GREIGHTON,

NEW HAMBURG, N. Y.

CARNATIONS.

YOUNG PLANTS AND ROOTED CUTTINGS.

Send for descriptive price list of thirty varieties, including new varieties of this year.

Geo. Hancock,

GRAND HAVEN, MICH.

CARNATIONS.

5,100 well rooted cuttings 1½ in. White, the most prolific bloomer and best keeper grown, \$12 per 1000.

DeWITT BROS., Bristol, Pa.

HYDRANGEA OTAKSA, large plants, 50c. to \$2.00 each.

GERANIUMS:

Per 100

- Gen. W. S. Hancock, 4-in. pots, \$7 00
Mme. Thibaut, 4 inch pots, 7 00
H. W. Longfellow, 4-inch pots, 7 00
Gen. Grant, 4-inch pots, 6 00

W. A. BOCK,

NORTH CAMBRIDGE, MASS.

At One Day's Notice.

FREE BY MAIL.

10,000 young Chrysanthemums, over 100 fine varieties, all styles and colors, named, not less than 5 of a kind, \$2.00 per 100; \$15.00 per 1000.

If you want the best all purpose Yellow Chrysanthemum, try Golden Beauty, it will please you. 25 each; \$2.00 per dozen.

Per 100
1000 White Rocket Candytuft. \$2.00
1000 China Pinks, all styles, mixed. 2 10
1000 Stevia, tall and dwarf. 2 00

The above plants are all in boxes, and can be shipped in their bulk by express, or will be sent free by mail packed in moss.

Orders booked now for rooted cuttings of Stevia, Sweet Alyssum and Feverfew in any quantity, to be delivered in May or as soon as rooted. \$1.00 per 100. Address

J. C. GIBSON,

Woodbury, N. J.

BULBS. BULBS. BULBS.
SEEDS. SEEDS. SEEDS.
 OUR NEW WHOLESALE LIST for
 '90-'91 is now ready.

Remember

EARLY ORDERS

Get best attention, quickest delivery and special inducements for parties ordering prior to May 1st.

CHINESE NARCISUS, DELIVERY IN SEPT.
 Specially favorable Estimates.

H. H. BERGER & CO.,
 P. O. Box 1501, SAN FRANCISCO, CAL.
 Mention American Florist.

ORCHIDS! ORCHIDS!

Many additions of Choice New varieties this season.

Send for New Catalogue.

WM. MATHEWS,
 UTICA, N. Y.

CUT BLOOMS AT ALL SEASONS.
 Mention American Florist.

ORCHIDS

Cheap as Good Roses.

Send 8 two-cent stamps for Catalogue and Plate.

BRACKENRIDGE & CO., Govanstown, Md.

PALMS.

LATANIA,
KENTIA,
ARECA.
Dracaena Terminalis.

CYCLAMEN, Williams' and other good strains. For further information

Apply to **EDWIN LONSDALE,**
 WYNDMOOR, CHESTNUT HILL,
 PHILADELPHIA, PA.

FERNS. PALMS.

40,000

Fern Seedlings, in the following varieties, at \$5.00 per 100, from 2½-inch pots.

ADANTUM C. ROENBECKII,	PTERIS TREMULA,	
" WILLIAMSII,	" ARGYREA,	
" LATHOMI,	" SERRULATA var.	
" GRACILLIMUM.		Per doz. Per 100
LATANIA BORBONICA,	4-inch pots,	\$3.00 \$25.00
" "	3-inch pots,	1.50 15.00
" "	6-inch pots,	10.00
PANDANUS UTILIS,	6-inch pots,	9.00

Also a large stock of *MUSA SUMATRANA*, the best of all var. Bananas, \$1.00 each; \$50.00 per 100.
 Address

GEO. WITTBOLD,
 School & Halsed Sts., LAKE VIEW, CHICAGO.

Fine Dracaena Australis and Indivisa

24 to 36 inches high; just the thing for cemetery vases and boxes.
 Out of 3-inch pots..... \$9.00 per 100
 Out of 4-inch pots..... \$15.00 per 100
 10 per cent. off for cash.

SCHILLER & MAILANDER,
 NILES CENTER, ILL.
 Give orders to our city office, 730 W. Madison St., CHICAGO, ILL.



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SIEBRECHT & WADLEY'S
 NEW CATALOGUE OF
 NEW, RARE

—AND—

BEAUTIFUL PLANTS,

Fully Illustrated and Descriptive.

208 PAGES.

Per Copy, 25 Cents, Postpaid.

THE ROSE HILL NURSERIES,
 NEW ROCHELLE, N. Y.

All Wholesale and Trade Catalogues Free on application.

Mention American Florist.

Siebrecht & Wadley,

409 Fifth Avenue, NEW YORK, U. S. A.

AMARYLLIS AULICA PLATYPALALA, a rare winter blooming variety for cut flowers, \$1.00 each.

" DEFIANCIE, robust grower, easy and continuous flowerer, very handsome flower, 50 cents each.

	Per Doz.	Per 100.
AMPELOPSIS VEITCHII, strong 1 year.....	\$1 00	\$ 6 00
ARUNDO DONAX VARIEGATA	2 00	15 00
CANNAS, New Dwarf French.....	3 00	20 00
CHRYSANTHEMUM, Mrs. Alpheus Hardy.....		10 00
450 varieties always in stock.		

We are short of **E. H. FITLER** and **MRS. W. K. HARRIS**, please offer us these two sorts.

MR. H. CANNELL we call one of the very best yellows for cut flowers. 20 cents.
 EDOURD AUDIGUIER. This is a remarkable variety little known. EARLY, rich velvet purple violet. Fine for cut flower. 20 cents.
 GERANIUM LA FAVORITE, best double white.....\$6.00 per 100.
 HARDY PHLOX, 100 best varieties. Our selection.....10 cents.
 NEW ROSE CLOTILDE SOUPERT.....\$15.00 per 100

V. H. HALLOCK & SON,
 QUEENS, N. Y.

A NOVELTY.

One of the most valuable **HARDY PERENNIALS** of recent introduction.

THERMOPSIS CAROLINIANA.

Plants 3 to 5 feet in height, flowering in June and July, bearing strong, upright racemes of lemon yellow flowers, very showy. Blooms second year from seed.

I OFFER FRESH SEEDS OF THE ABOVE AT \$1.00 PER PACKET.

WM. J. STEWART,
 67 Bromfield Street, Boston, Mass.

Mention American Florist.

WE HAVE A LARGE STOCK

DAHLIAS.
 GLADIOLUS.
 RICHARDIA.
 MILLA BIFLORA.

AMPELOPSIS.
 MOON VINE.
 GERANIUMS.
 PANSIES.

And a general assortment of Greenhouse and Bedding Plants and Summer Flowering Bilbs. Write for Wholesale Price List for Spring, 1890.

MICHEL PLANT AND SEED CO., ST. LOUIS MO.

Heating.

Will some one who has the necessary experience please enlighten me on following matter: What size boiler (give length and diameter) will heat three houses each 150x10 feet in 10' above zero weather up to 75°? State whether double return is most economical. Shall I use 2 or 4-inch pipe, and how many runs to the house? Will it be necessary to sink the boiler, and how much? Where is best place to put expansion tank and the valves? Any further information that may be deemed necessary. Have no money to pay for experiments, therefore I want to know just what to do.

B. H. 1.

Killing Greenfly.

As several have given to the readers of the FLORIST their various methods of killing greenfly I mention a new method recommended by a young gent from an eastern city, who said he knew all about the flower and plant business. He said that his folks kept down greenfly by making a small fire in an iron vessel and burning the leg of an old boot in it. After unloading this advice he appeared to feel a little easier and bid me "good day." Of course I told him to "call again."

I. J. BYERS.

Nickerson, Kan.

Sifting Soil.

What is the best, quickest and cheapest method of sifting soil for pot plants? I use at present a screen such as used by masons. Is there not some quicker and better method?

J. M. D.

VERBENAS AND PANSIES.

	Per 100
Verbenas named.....	\$ 3.00
Verbenas, mixed Mammoth seedlings.....	3.50
Pansies, large transplanted plants, per 1000.....	\$18. 2.00
Pansies, Fall sowing from seed bed, strong per 100.....	8.00
Abutilons in variety.....	4.00
Abutilon Non Erecta.....	\$5.00 per doz.
Alyssum and Agrostis.....	3.00
Antemina coronaria.....	4.00
Begonia Rex.....	\$5.00 doz.
Coleus Golden Bicolor, Verschaffeltii.....	3.00
Coleus in great variety.....	\$30.00 per 1000
Cannas, French Hybrids, named varieties.....	10.00
"Nabils, dry rock.....	5.00
Daisies English.....	3.00
Daisies Marguerite.....	4.00
Feverfew Little Gem.....	4.00
Fuchsia Phenomenal and E. G. Hill.....	6.00
Storm King and others.....	3.00
Geraniums, great variety.....	3.00
" Earl Roslyn, Mme. Sallerol, Mt. of.....	3.00
Snow.....	3.00
Primula Obconica, 3 1/2 inch.....	10.00
Richardia Alba Macinata.....	\$3.00 to 10.00
Tuberose bulbs.....	1.50
Violets.....	1.50
Vines Major Var. very strong, 4-inch.....	16.00
Primula Obconica seed.....	1000 seeds, 75c.

Would exchange for some H. P. Roses, young stock.

I. N. KRAMER & SON,
Marion, Iowa.

PANSIES.

	Per 100
Plants in bloom ready for immediate use.....	\$ 3.00
Medium size plants.....	2.00
Transplanted, young plants.....	1.00

VERBENAS.

Good varieties, 2 1/2 in. pots.....	3.00
Rooted cuttings.....	1.00

RHODODENDRONS.

Native variety, white, very fine plants.....	3c. each.
Special price on large quantities.	

SPHAGNUM MOSS.

Parties desiring large quantities will do well to communicate with us.

English Ivy Leaves.

Picked to order.....	per 100, \$.35
Picked to order.....	per 1000, 2.50

G. R. CLARK & CO.,
SCRANTON, PA.

F. R. PIERSON & CO.,

Tarrytown, New York, U. S. A.,

ORIGINAL AND LARGEST GROWERS OF



Lilium Harrisii Better known as The Bermuda Easter Lily

The Best in the World for Forcing Winter Flowers.

WE OFFER ONLY STRONG FIELD-GROWN BULBS FROM
OUR OWN GROUNDS IN BERMUDA.

THIS VALUABLE LILY IS OUR SPECIALTY.

We grow the bulbs by the acre on our own grounds in Bermuda. We were the first to grow it in large quantities and to offer it at reasonable prices, and we have always been recognized by the trade as

HEADQUARTERS FOR THE BERMUDA EASTER LILY.

Supplying the trade as we do both in this country and in Europe, and we hold by far the largest and the controlling stock of the genuine variety in the market.

The extent of our operations in this bulb alone will be best understood when we state that we expect to sell from OUR CROP of 1890, over a

HALF A MILLION BULBS.

Be sure you get the genuine Lilium Harrisii. In order to secure "the true variety," purchase your Bulbs from original stock, which is known to be pure. The value of this Lily has led unscrupulous or ignorant parties to plant L. Longitlorum in Bermuda, or grow it there one season and send it out as Harrisii, and dealers should look with suspicion on bulbs offered at prices less than market rates, as the supply has never yet met the demand; "Mixed Bulbs" only being offered at reduced rates.

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Puget Sound.

SEATTLE, WASH.—Easter in this far away corner did not find the florists in the best of shape for good trade. The season was against them. Ordinarily they could have expected much more warm weather than was experienced previous to Easter and as a consequence the lilies were all backward. Callas were quite numerous and there were a few roses to be had and some hyacinths, but aside from that bloom was scarce. The reason is that all but two of Seattle's dozen florists have been in the business here about one year, so their stock is yet in the beginning stage.

AT TACOMA there are a number of florists doing good business though Mrs. A. R. Mann seems to be in the lead. She was tolerably well supplied with bloom for Easter though she was compelled to import some flowers to fill her orders. At least she tried to buy lilies here and found the supply inadequate to the local demand.

OLYMPIA, I believe, is an excellent place for a florist to locate. It is the capital of the state. People there have fine gardens in the summer, but as far as I can learn there is not a florist there who will supply blooms and decorative plants for the numerous legislative and political festivities.

PORT TOWNSEND is another good city for a florist to locate at, and so is Whatcom. Of course this whole country is overrun by nurserymen and their canvassers, but the places I speak of have no florists and the cities are growing rapidly.

IN ALL probability there will be a weeding out in Seattle, as there seems to be a large number of florists here for the size of the place. EDMOND S. MEANY.

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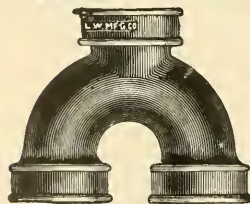
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3 1/2	4.50	5.00	5.50	6.00
4	5.00	5.50	6.00	6.50
4 1/2	5.50	6.00	6.50	7.00
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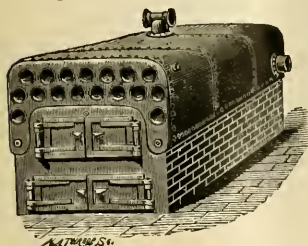
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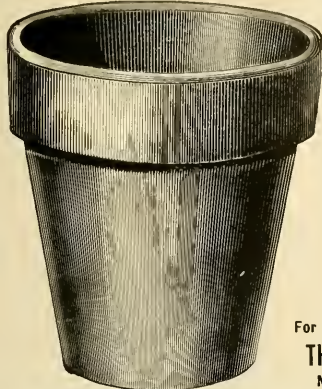
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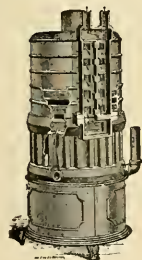
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Index to Advertisers.

Advertising Rates, etc. 466
 Aldine Printing Wks. 478
 Allen S. L. & Co. 469
 Allen, W. S. 467
 Angier P. A. & Co. 468
 Baller P. A. 463
 Bassler Andrew 463
 Bayersdorfer H. & Co. 478
 Bear Samuel St. 471
 Berger, H. H. & Co. 473
 Black A. 476
 Book Wm. A. 472
 Brackeacker & Co. 473
 Brauer & Richmond 474
 Britton W. P. 469
 Brown R. & Son. 469
 Burrow J. G. 468
 Carnody J. D. 480
 Casper L. A. 476
 Cefrey Florist Letter
 Co. 477
 Chandler Alfred 478
 Clark G. B. & Co. 474
 Creighton George 472
 Desmond Wm. & Co. 469
 DeYser J. A. 471
 Devine, Peter 479
 DeWitt Bros. 472
 Diaz, John L. & Co. 479
 Dillon, J. L. 467
 Dhaage & Conant Co. 478
 Dreer, H. A. 464
 Elliott B. A. Co. 461
 Ferguson John 478
 Fisher Bros. & Co. 468
 Fish Chas H. 467
 Floral Exchange 464
 Fries O. W. 467
 Fryer R. 476
 Gardiner John & Co. 468
 Germond & Cosgrove 465
 Gibson J. C. 472
 Greene W. W. Son &
 Sayles 469
 Grey Benj. 468
 Griffith Jas. 475
 Griffith, N. S. 472
 Hall Association 475
 Hales, H. W. 468
 Hallock V. H. & Son. 473
 Halsey Wm. F. 468
 Hammond, Benj. 469
 Hammond W. S. & Co. 476
 Hammond & Hunter 467
 Hancock George 472
 Heim Jao G. 472
 Henderson John Co. 469
 Henderson Peter & Co. 475
 Herendeen Mfr. Co. 480
 Herr, Albert M. Co. 476
 Hillinger Bros. 478
 Hippard R. 478
 Hitchins & Co. 469
 Hooker, H. M. 478
 Horan, Edw. C. 467
 Hoyt R. D. 464
 Hudson John M. 467
 Hulsebosch A. 471
 Hunt E. H. 467
 Hughes E. G. 473
 Johnson Jas. 472
 Ives, J. H. 480
 Jewett Z. K. 476
 Johnson Jabez 468
 Johnson & Stokes 469
 Joosten C. H. 479
 Jordan Floral Co. 465
 Jurzens A. 467
 Kennicot Bros. 467
 King Jas. 470

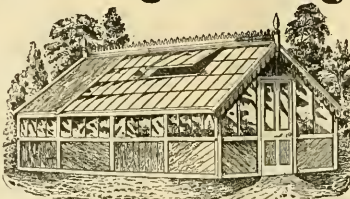
Kramer I N. & Son. 474
 Krick, W. C. 468
 Krumbach Charles 478
 Larkin Isaac 472
 La Roche & Stahl 467
 Little W. S. 468
 Lockland Lumber Co. 479
 Long Daniel B. 475
 Lonsdale Edwin 473
 McBean A. S. 476
 McCarthy & Co. 467
 McFarland J. Horace 468
 McHenry 478
 Macher C. H. C. & Sons 470
 Mathews, Wm. 473
 May John N. 465
 Michel Plant & Seed Co. 473
 Miller, Geo. Wm. 465
 Muller & Neuner 464
 National Hot Water
 Heater Co. 479
 Nichols Samuel 471
 Nielson Hans 469
 Oelvie A. J. 477
 Pennoek Chas E. 467
 Person F. R. 474
 Piety, Josephus 479
 Quaker City Mfr. Wks. 478
 Richards & Co. 478
 Renard Jos. 472
 Roche Alphonse 470
 Rorer, A. & Sons. 471
 Ross & Millang 467
 Ruter Bros. 465
 Salford George 468
 Schiller & Mallander 473
 Schlegel & Fottler 469
 Scholz Jacob 465
 Seelby John A. 479
 Segers Bros. 471
 Shelmore W. R. 472
 Sheridan W. 467
 Shreucht & Wadley 473
 Siple Dapile & Co. 479
 Situations, Wants 463
 Smith & Smith 465
 Spooner Wm. H. 465
 Starr Chas. T. 472
 Steffens N. 475
 Stevens B. A. 476
 Stewart, Wm. 467
 Stickel J. P. 472
 Strauss C. & Co. 467
 Suder N. 472
 Sunderbruch H. L. 476
 Swayne Wm. 472
 Syndicate of Growers 469
 Taylor John H. 465
 Temple J. T. 464
 Thomson Mrs. J. S. R. 468
 Thompson Geo. & Son 468
 Thorpe John 476
 Tomner John F. 468
 Van Bochove G. & Bros 468
 Van der Schot & Son 471
 Van Zanten G. V. & Co. 471
 Ware Thos. S. 469
 Weathered, Thos. W. 469
 Welch Bros. 477
 Willidin Pottery Co. 479
 Williams H. W. & Son 469
 Wisconsin Flower Ex. 468
 Witbold Geo. 473
 Wolf J. Mfr. Co. 478
 Wood Bros. 469
 Young, Thos. Jr. 467

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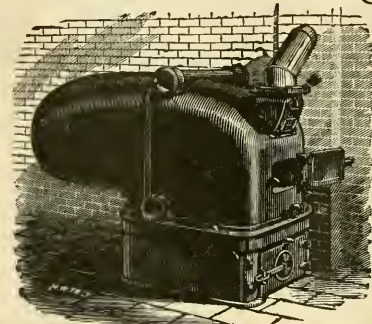


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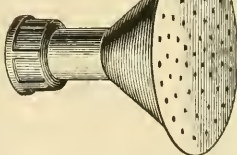
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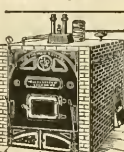


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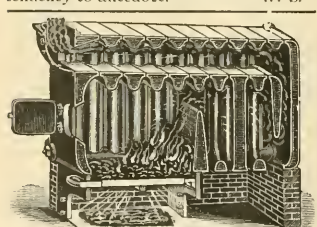
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BUFFALO.—On his way to Detroit the general secretary of the National society laid over a few hours in this city. Half a dozen of the Buffalo boys were ready to receive him, and he was soon engaged in a game of ten pins in the same alley where such illustrious lights as Messrs. Norton, May, "Papa Contier Anderson," "Cypridium Manda," "Hybrid Perpetual Roehrs" and others have played. Several toasts were indulged in and the meeting broke up most happily, with a slight tendency to anecdote. W. S.



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THE AMERICAN FLORIST



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Vol. V.

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CONTENTS.

Notes From Central Park, New York	481
Tulip bed, Central Park, N. Y. (figure)	482
Hydrangea Thomas Hogg (with illustration)	483
New York notes and comments	483
Our national society	483
Gloxinias	484
Cut flower quotations	484
Group of gloxinias (illustration)	485
The "Ostrich Plume" Chrysanthemum	486
Sulphur asa fungicide	486
Sifting soil (with illustration)	487
Roses—shading	488
Marketing cut flowers	488
A contrast (with illustration)	488
Arboretum notes	493
Is Primula obconica poisonous	490
Hail insurance	490
News notes	491
To the young men	492
The cut flower trade	494
Comiog exhibitions	494
Nurserymen's convention	494
Historical	494
Uncle Sam's big seed barn	496
Import duty on catalogues	496
Violet crops	496
The brick flue	497
Detroit	498
Boston	500
Chicago	502

Notes From Central Park, New York.

BY WM. FALCONER.

Being in New York on April 30 and having a little while to spare I visited Central Park to see the tulips and the spring flowers. The whole park was perfectly lovely.

Large beds filled with tulips occur outside of the main entrances to the park, and also in some of the principal squares in the city, and tulips, pansies, daisies and other transient plants have also been planted around the several buildings inside the park. These beds when the gay tulips are past shall be emptied of their present occupants and filled with summer bedding plants.

Central Park is so very extensive and its surface, naturally and artificially, is so varied and so rocky that great possibilities are afforded for tasteful and appropriate adornment with hardy flowers.

The moss pinks (*Phlox subulata*) red, pink and white, in broad solid sheets spread upon the brows of rocky banks have a striking effect even in the far distance, and upon coming up to it we often find that the carpet of phlox is only a part of the decoration of the rocky knoll. Associated with it on the driest crests are *Sedum* acre, and spread about are other sedums as *Nevii* and *ternatum* which love slight shade, *pulchellum* which renews itself from seed every year, *album* which blooms immediately after acre, *dasyphyllum* and *Hispanicum* which form close mats of glaucous blue and are prettier in leaf than in bloom, *spectabile* which blossoms in August and September, and *Sieboldii* which waits till September and October. Then there were other kinds of *Phlox*, as *amcna*, *rose-pink*, now in full bloom; *Stellaria*, a cushion of lavender, and *divaricata*, fragrant and purple. *Erysimum pulchellum* was a sod of golden yellow and shown off to much advantage when associated with *Arabis albidia*, the white rock cress, or *Iberis sempervirens*, also white, and both now in full bloom.

Carpets of violet and purple were supplied by *Aubrietia deltoidea* and its varieties. Although these are dwarf sod-forming plants they are very tenacious of life, extremely profuse and showy in quantity and they last in good bloom at least two months at a time. When grown near the white candytuft or white rock cress they were displayed to much better advantage than when grown alone; indeed white seemed almost imperative in proximity to pink or purple, but pink and purple or yellow and purple in pronounced quantity beside each other would be inharmonious.

Complimentary to these plants on the rockeries were many others of lesser effect. The *ajugas* were spreading in patches, the little *Veronica alpina* covered with

pale blue flowers scarcely rose above the ground, and the woolly *V. pectinata* was spreading about among the rocks. The yellow *Waldsteinia* was in good bloom, the starry white *Stellaria Holostea* was at home near the shrubby edge; *Iris pumila* and its forms found genial quarters on the lower slopes, hardy violets occurred wherever they could scatter their seed, and *dianthus*, *semperivirens*, creeping *gypsophila*, and many others not yet in bloom prevailed among the rockwork. Of the little *Saxifraga Virginensis*, which is indigenous there, large quantities were scattered among the rocks and in full bloom. *Epimediums* were also plentiful.

In preparation for planting out were quantities of many hardy plants, for instance, *Saxifraga granulata*, a pretty little European plant; *Gentiana acualis*, broad patches of which were in bloom, but the plants had a yellowish tinge; different species of *trilliums*, *tertensia*, hardy pinks, *Tellima grandiflora*, and a large number of later blooming plants. Besides these a lot of small ferns like *Cheilanthes tomentosa*, *Woodsia*, *Oregon* and the like were being gotten up for planting in the crevices of the rocks.

In making beds for hardy plants at the top of rocky declivities, and especially on the top of steep rocky bluffs a moderately broad margin of the natural sod is left undisturbed; this is to stop washing in rainy weather.

Quite a pretty feature in the park is the multitude of *erythroniums* and *dianthus* that abound in the woods, and the violets, *claytonias* and other flowers that are at home in the grass, and the preparation with *houstonias*, *trilliums*, *trollius*, *polygonatum*, etc. to add to them.

THE TULIPS.—The tulips were in all their glory and some massive beds, both in the city squares and near the park entrances were filled with them. Only three colors, namely, red, yellow and white, were used in a bed no matter how large it might be or how many thousands of plants it might contain. The plan of the bed herewith sent is that of the one at corner of 59th street and Fifth avenue, it is about 40 feet in diameter and contained 5,500 tulips. In it there is a solid circle filled with white *Pottelbakker*, then a band of *La Belle Alliance*, scarlet, surrounded with a heavier circle of *Canarybird* for yellow, and on the outside a heavy belt of *La Belle Alliance* again. The bed in City Hall Square is practically a repetition of this one, both in design and variety. The bed at 59th street and Eighth avenue was made up of the same colors, namely, *Pottelbakker*, white; *Yellow Prince*, yellow, and *Crimson King* for scarlet. It contained 10,000 tulips, but the design was different. The regularity of the tulips and the evenness with which they came up and blossomed

STILL twenty-eight pages.

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were quite noticeable. They were planted during the last week of October and first week of November. In preparing the beds for planting the earth to the depth of 6 inches was taken out completely and laid to one side, rotted manure was then introduced and forked into the bed whose surface was then smoothed and the design marked out. The bulbs were then set out with the utmost regularity, all sitting upright and in place on the top of the ground, and when the whole bed had been planted the earth that had been removed was returned, gently at first so as not to disturb the bulbs, and all was evened off and left till spring. No covering as of salt hay, thatch, littery manure, branches or anything else of the kind had been used over the beds during winter. This same design, or a modification of it, will be used in the case of the bedding plants that are to be set out in these beds after the tulips are past.

TREES AND SHRUBS.—Considerable thinning has recently been done and with much benefit to the good looks of the park and the welfare of the remaining trees. Many Austrian and Scotch pines, Norway and hemlock spruces still remain in wretchedness. None of these trees when old thrive with us at Glen Cove any more than they do in Central Park, in fact when they get to be 25 or 30 years old decrepitude always overtakes them. And then again I know of instances around New York where both these spruces have become handsome large trees. The deciduous trees were just bursting their leaf buds and very few of the showy flowering ones were yet in bloom. The double-flowering Chinese cherry was at its best; the black thorn (*Prunus spinosa*) was white as snow, and the shad bush (*Amelanchier*) was also a cloud of white. Most of the early magnolias were shedding their petals, but *M. Lennei* was yet very beautiful, it is the largest and finest of the purple tinged varieties. Among shrubs *mahonias* were full of bunches of yellow racemes, Thunberg's spiraea displayed its snowy spray, *Lonicera fragrantissima* was still in bloom and leafing out, *forssythias* were gay but past their best, the shrub yellow-rub (*Zanthorhiza*) was draped in brown fringe, and Thunberg's barberry was full of bloom. This little shrub (*Berberis Thunbergii*) is attracting much attention on account of its neat habit, early leafing and flowering, finely colored autumn foliage, keeping its leaves late in the fall and its crimson-scarlet fruit not only all winter long but also till the following May, when the plants are rendered unique, bearing as they do leaves, flowers and ripe fruit all at the same time. It is also esteemed for ornamental hedges. *Rubus odoratus* is being largely planted in slightly shaded places, among trees, because it thrives well in such a place and blooms most all summer.

VINES.—My attention was directed to broad spreads of Hall's honeysuckle covering banks, knolls or rocky shoulders; it is pruned back almost close to the ground every second or third year, for two reasons, namely to keep it in well-compacted neat form and afford an opportunity to have it freed from weeds, sticks and other objectionable matter. Against the buildings *Ampelopsis tricuspidata* is being used to displace the Virginia creeper; when grafted on the Virginian creeper it is found to grow more vigorously than when grown on its own roots. The *A. Roylei* has been tried but found to be barely hardy enough. Among true ivies (*Hedera*), *Regneriana*, which is one of the largest leaved and hardiest of all, has

made rapid progress covering the shady face of some high rocky ledges with a pleasant wrap of green foliage.

THREE BAD WEEDS.—*Polygonum cuspidatum*, *Ægopodium Podagraria* and *Tussilago Farfara* are regarded as three of the most pernicious pests ever introduced into the park; when once established they spread with much rapidity and are hardly eradicable. At the same time the *polygonum* has much merit as a decorative plant, and the variegated leaved bishopweed (*Ægopodium*) although it spreads about as persistently as does the green-leaved one is often catalogued and grown as a hardy ornamental perennial.

BEDDING PLANTS.—Although many thousands of these are used in summer, the variety is limited and confined to a

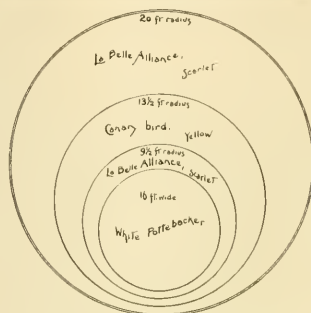


DIAGRAM OF TULIP BED, CENTRAL PARK,
NEW YORK.

few thoroughly reliable sorts. *Geraniums* include some white and yellow-variegated leaved sorts, *Black Hawk* as a bronze and the double *General Grant* as a scarlet. Among *coluses* *Verschaffeltii* as a crimson and *J. Goode* as a yellow are the favorites; and the dwarf yellow *versicolor*, *amena* and *paronychioides* major among *alternantheras*. Among variegated leaved plants *Ficus Parcellii* is going to be tried this summer. And 175 plants of *Musa ensata* now in 12-inch pots and the result of 500 seeds sown last year are getting ready for summer work. The dwarf *canas* are much esteemed, and a stretch of hotbed frames is filled with them. A lot of *Papyrus antiquorum* in pots is also being got ready for planting out. When planted out in summer in deeply worked rich ground and liberally watered the paper reed grows very luxuriantly, but some difficulty is had in keeping it over winter. Outdoor plants had been brought in in the fall and cut up for propagating but a good many failed. When I used to grow these *papyrus* I never planted out my stock plants, but kept them in pots all the time.

ACALYPHA.—*Acalyphas* are used in thousands for summer bedding. Their vigorous, bushy habit and bold brilliant foliage render them more striking than any *coluses* or other soft wooded plant, and if well fed they revel in the warmest and sunniest parts of the garden. Many of the florists who attended the convention of the S. A. F. in New York two years ago will remember the massive foliage of the *acalypas* that were planted out in the beds in the city squares, and wondered what species it was. That very large leaved one was *A. macrophylla*; this, also *A. Wilkesiana* (tricolor) and *A.*

musaica are also largely used in Central Park. The first time I saw these handsome plants used to good advantage for summer bedding was in 1876, with Mr. Smith at the U. S. Botanic Gardens, Washington.

AQUATICS.—One span-roofed greenhouse 100 feet long by 11 feet wide and with side benches and a pathway along the middle was entirely devoted to the housing and propagating of aquatic plants for outdoor summer decoration. On the benches are arranged a series of water tanks which are made of plank lined with lead or zinc, but the lead lining is much preferred.

The plants consist of *nymphaeas* and *nelumbiums* of most all procurable kinds, *apogoneton*, *limncharis* and *cichhornia*. The *nymphaeas* had been planted in shallow wooden tubs or boxes or pots, and these sunk into the water tanks to whatever depth thought desirable. The *apogoneton* was grown in the same way but kept pretty near the surface of the water, not so much for the sake of the old plants as for the multitude of young seedlings of it that is being raised. Both the *limncharis* and *cichhornia* occupy a tank each, swim on the surface and fill their quarters packed tight. For summer use they will merely be lifted out of these tanks and cast into the outside lakes to spread and bloom at will.

At planting out time the *nymphaeas* and *nelumbiums* are brought hence to the ponds where all is in readiness to receive them, and instead of being turned out of their tubs or boxes, they are set in place in the holes prepared for them, the sides of the boxes knocked off and the hoops of the tubs cut and the staves removed, and the holes about the plants are filled in with earth. This prevents any disturbance of the root such as would be likely to occur were they turned out of their tubs as we turn a plant out of a pot.

The hardy species that are meant to remain permanently in the ponds are planted out into the soil in the ponds, but the tender species are not; they are planted into large plank boxes 5 or 6 feet square by 16 or 18 inches deep and filled with loam and these are lowered into the water. By this means the plants are under complete control in summer, and the roots are in warmer ground than they would be were they planted in the soil in the bottom of the pond, and they are easily gotten out in the fall. A derrick is used to lift the boxes in and out.

At the end of the summer when they are removed from the pond, one side of a box is knocked off and a careful man removes the soil and saves the plants and roots as intact as possible, and retubs or boxes them into the small sizes and places these in the greenhouse tank.

In the case of some *nelumbiums* and hardy *nymphaeas* that are also removed in fall in this way, deeper tubs are used and they are left outside in a warm place till cold weather sets in when they are emptied of water, and all set up close together, and thatch and tree leaves are piled over and about them enough to exclude frost, and boarding laid over them to keep them dry from rain and snow. When the winter is past the covering is removed and the tubs placed in a sheltered, sunny place and filled up with water again.

The workmen were busy cleaning out a pond for hardy water lilies, they were removing some inches deep of the surface mud. This was to be replaced by as much in depth of fresh fibrous loam and



HYDRANGEA THOMAS HOGG.

rotted in anure for the lilies to grow in. An inch or two of clean gravel over it would do away with any tendency to render the water muddy.

New York Notes and Comments.

Julius Roehrs has a flourishing house of his new rose, as yet unnamed. It will be remembered that this rose made its appearance in a lot of Anna Alexieff; it was at first regarded as a sport from this, but the marked difference between the two makes this extremely uncertain. Whatever its origin the nameless rose is a fine one—in color rather similar to Alexieff, it is larger, firmer and more double, with the advantage of a delicious fragrance. It shows a tendency to throw up single strong large shoots, instead of a number of smaller ones, like Alexieff, and possesses strong handsome foliage. It is a very early forer. Mr. Roehrs is not at all decided as to a name for this rose, though every one who sees it is ready to offer a suggestion. One of the names offered, which has the advantage of being short, popular and suggestive, is Mascotte—how does that sound for a rose?

Mr. Roehrs is putting steam heat throughout his place, and is also putting up some additional glass both for roses and palms. He does not grow small roses at all; hybrids are his specialty and he sticks to them, with the addition of palms and bulbs. His palms and other foliage plants are noticeably flourishing, among them a nice lot of *Dracena fragrans*, which is well liked among the trade for color, habit and durability.

Dracena Lindenii should be of decorative value; it is a very handsome plant, but a little tender. The popularity of a decorative plant must always depend quite as much on its ability to stand rough usage as on its beauty.

A good grower who has tried plunging the pots of his palms in tan bark says he is disappointed as far as its heating qualities are concerned. It does not appear to heat one particle, if anything, it tends to keep the pots cool. There appears to be a decided difference between the tan bark here and in Europe; there is a good deal of hemlock in it for one thing, instead of its consisting almost entirely of oak; it is ground up very fine, and seems to have been treated differently for the tanning. Abroad, nurserymen use it a good deal for plunging, as it heats quite quickly.

Palms and the like will not be kept in the houses much longer where there are facilities for placing them outside; as soon as the danger of frost is over a great many growers stand them out where they will have partial shade, either under trees or in a lattice shed, such as is used for azaleas and rhododendrons. This outdoor treatment has a very beneficial effect in hardening the foliage, as well as avoiding risk of burning.

A great many of the hydrangeas which came in since Easter have been sold in the form of cut flowers at \$5 a 100; they are much used where a showy effect is desired, to be viewed at a distance.

Trade is not bad considering the time of year, and it is likely to be brisk around

Decoration Day. Local trade around the city in bedding plants of all kinds is really good. In suburban places one can readily notice an increased taste for ornamental trees and shrubs; people take more interest in this class of stuff and seem inclined to plant things permanently decorative, in addition to more perishable bedding plants.

Mr. S. Henshaw is now at Thompson, Conn., superintending the arrangement of a large country place, the property of J. W. Doane, Esq.

Judging from the fact that chrysanthemums are now to be seen in considerable quantities at places where formerly they were not grown at all, it would appear that they now form a staple for the cut flower trade. Of course such growers do not go in for a great many varieties, they confine themselves to sorts which have proved their value in the flower market. Retailers would be as much at a loss now to be without chrysanthemums in autumn as to be without roses in winter.

The subscription started by the Florist's Club for the purpose of holding a flower show has been responded to so liberally that there is little doubt of its ultimate success; such a show would materially add to the usefulness of the club.

EMILY LOUISE TAPLIN.

Hydrangea Thomas Hogg.

The accompanying engraving is from a photograph of a specimen plant grown by Messrs. Gooding & Leitch, Cleveland, O. Could anything be more useful for church decoration at Easter.

Our National Society.

FUTURE BENEFITS TO BE DERIVED.

It may seem to many that this subject has been discussed enough; that there has been, there is, and will continue to be, a benefit in the society for all its members, and that the steadily growing strength of the society is proof that the fact is generally admitted. But there is one idea in connection with this subject which I have not yet heard spoken of by any of our members, although it has doubtless been in the minds of many. It is this: The growth of the society will engender economy to the craft. This may be explained in many ways, but I will mention only the one I consider the principal. We are to increase our future profits more by lessening our present expenses than in any other way. There is no doubt I hope in the minds of any of us that both flowers and plants can be produced cheaper on a large scale than on a small one; not only cheaper but better, and with less individual care, worry or labor. A man starting a greenhouse business on a small scale is under many disadvantages; on a small place only large enough to support himself he tries to do the labor, watch the fires day and night, study the requirements of his stock, also his customers, keep his accounts, do his own collecting, propagating, delivering, etc.; in fact he has so many irons in the fire he is sure to let some burn, hence a loss; if he manages to save enough to enlarge he gets help, his first help should be common labor, this gives his body a rest and strengthens his mind, he can think and calculate better. When he becomes able he employs another hand; let this be some one to deliver, run errands, etc., then he can spend almost the whole of his own time right where his capital is invested, and watch it with more care, produce better stock; then he

will notice an increased demand for his produce, and so on as fast as he increases his business, employ help, and has each employ take a certain branch or department as his specialty; he must always retain the highest priced branches of labor for himself until the last. Never hire a man at \$3 a day and work yourself at labor which you can employ at \$1, that would be a loss of \$2 a day to you.

After this man has successfully built up a large business, if he is wide awake he will discover that he has been traveling up a mountain, that the further he goes the less the road has been traveled before and consequently the more danger in letting his vehicle stop. It is sure to roll back down the hill if he does, and although he may have shown strength in climbing where he is, the crash will be greater in proportion to the height attained if he roll back. Here is where the S. A. F. takes hold of us. We are all climbing the same mountain, at first we are too apt to look at the mountain and say it is narrow up there and there is not room for many of us up there, but we have learned that the mountain peak is only as a finger pointing to perfection as we climb. Although we continue to get higher we do not become crowded for the mountain continues to widen. Therefore we are gradually throwing our jealous instincts into the waste basket, and are helping each other climb. We have concluded that two heads are better than one, we have formed a caravan and will now travel together. If one of us strikes a snag President Jordan will at once send a detachment of the society's stump pullers and have it out. Don't you remember how Senator Wilson undertook to plant a postal snag in our way? It was not long after Secretary Hill sounded the alarm that we not only had the snag out, but made the road double the width at the same time. It would be difficult to estimate the saving in expense which was caused by this road improvement. This is only a fore runner of what is coming, we are becoming more and more as one corporation. I think we shall continue to interweave our interests with one another without scarcely realizing it until we really find ourselves consolidated.

Since we established a medium of exchange of ideas and reports of discoveries etc., which has saved many a partial if not complete wreck (the *Am. Florist*), who can be "penny wise and pound foolish" enough not to support that? Who can deny that the craft has profited on account of its existence? Next the hail insurance; this will undoubtedly soon be self-supporting, I mean by that it will soon have capital enough invested to pay all losses without assessment on its members. This is surely economy which must be credited to the S. A. F. Then there is the Protective Association for the saving of bad debts; it is not yet complete, but soon will be. I am sorry to admit there are dishonest drones among us, but it's a fact, and will it not be economy to compel them to pay for what they get? No one individual can cause this to be done, it is the work of the S. A. F.

There is one loss which I think should be the next to attract our attention; it is a large one, and can only be saved by the co-operation of all. It is the loss of cut flowers. There are many complaints nowadays of commission men made by the growers. Of course dissatisfaction comes in where flowers are thrown out. I notice some complaints that quotations are good but the returns are not according. I frequently get telegrams from

commission men from different places offering roses, carnations, etc. for the ensuing two or three days at reduced prices, or something like this: When roses are quoted at 10 cents they telegraph "can you take five hundred roses to-day at 5 cents?" In such a case I know the party has had consignments too large for the demand and is anxious to dispose of them on the quiet without breaking the price. If the grower himself was standing by he would sanction the action, but not knowing all the circumstances he will complain to find his roses went at 5 cents when quotations were 10 cents. Now what is the commission man to do when the stock piles up and no orders come in to take them? This may represent the state of affairs in Chicago and in St. Louis. They are very short of flowers, one city may lose flowers the same day another is short, but through each city not knowing the state of affairs in the other city, there comes a loss which might be saved to the mutual benefit of both. Frequently they do learn these facts, then A ships to B and C ships to D, etc.; sometimes fifty separate packages will be sent from one city to another ordered by as many telegrams when one shipment and one telegram might do all the business if proper arrangements were to be made. Can not we induce our commission houses to connect themselves in such a way as to establish a clearing house in each city and have each of these clearing houses connected by wire or special telegraph arrangements, so that market reports may be exchanged constantly, and drafts may be made from one to another on such surplus that may exist in one place and wanted in another? Something after the manner in which our banks handle their money. I think an immense saving could be made in, first, flowers themselves; second, telegraph expense; third, express charges. These three savings would be largely for the benefit of grower and commission man, but the retailer would be helped by being able to procure what he wanted easier and with less trouble and annoyance. Such an arrangement would perhaps necessitate the quotation of prices more frequently than now, but they could be put on the bulletin boards, there would be no temptation on the part of any individual to cut prices, and growers could always ascertain from the records of the clearing house just what stock was selling at each day in the year. This would in reality be establishing one immense flower market for the whole country; we would all grow for the one market and all purchase of the same market. Our market would be larger, our expenses smaller than now. Why not go at it at once? C. B. WHITNALL.

Gloxinias.

BY WM. FALCONER.

Between the end of March and the first of October I can get all the gloxinia flowers I want with very little trouble, but I must confess to ill luck between November and February. Gloxinias, however, are indispensable to me both as cut flowers and pot plants in bloom, and, happily, they are very easily grown in spring and summer and taken care of in winter.

There are two types of gloxinias, namely, drooping flowered, which is the original form and erect flowered which is a type obtained by cultivation. Both have their merits, especially in the case of pot plants, but my own choice is the erect flowered. It affords us a larger variety of color than do the drooping blossoms, and the flowers are larger,

more showy and display their brilliance to better advantage.

A stock of gloxinias can be gotten up in two ways, namely, from seeds and from cuttings of the leaves, and particularly in European collections, the finer varieties are named and perpetuated and catalogued as we do geraniums or roses. Some years ago we imported a lot of named sorts, paying \$1.25 per tuber, besides expenses, but we gained nothing as we get from seed varieties just as pure, brilliant, large and pleasing.

Although gloxinia seeds are very small and the seed packets are very thin, the seed has great vitality and most every one will grow. Now don't be too economical and buy cheap seed, but get the very best strain of seed that money can procure, then after you have gotten a good start you can save your own seed from your own finest flowers. Every batch of seedlings, however, is likely to contain some poor flowers, so that we should always be prepared to thin out and cast away inferior stock.

Seed sown in January in a warm greenhouse should, under favorable circumstances, afford us flowering plants in June; seed sown in February should give flowering plants for June or July, and seed sown as late as April should give flowering plants for August. How long the plants may continue in bloom depends upon circumstances, but generally they keep in flower for several weeks. And I find that late sown seedlings are much more to be depended upon for late flowers than are old tubers that had been started late, for it is a difficult matter to keep old tubers dormant and in a healthy state after May.

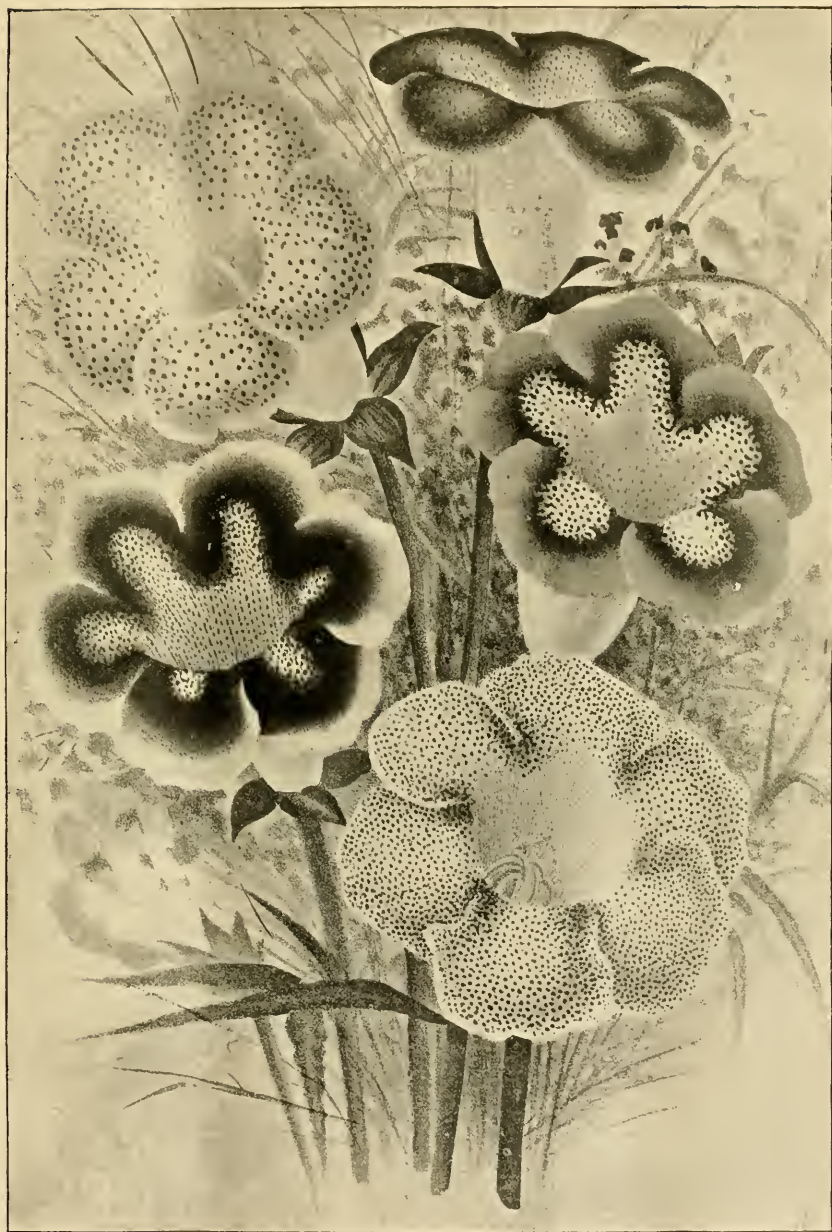
Nowadays we want four kinds, in color, of gloxinias, namely, the brilliant, velvety, crimson-scarlet, or scarlet and white; the intense velvety violet-purple, or purple and white; pure white, and the lovely spotted varieties. Of recent years these spotted flowers have become quite prominent, and they are exquisitely beautiful, just as easily raised from seed as are the self-colored ones.

Gloxinias for winter and spring blooming should be grown in pots in a warm greenhouse, near the glass but shaded from sunshine. Handsome plants with foliage bent over and completely hiding the pots may be had by growing the plants suspended from the roof in the same way as orchids are hung up; and when there is a demand for plants in bloom in summer they also should be grown in pots. And I find that plants in pots bear seeds more abundantly than do those that are planted out.

When cut flowers only in summer are wanted by far the easiest way to treat gloxinias is to plant them out in cold frames as one would pansies or lettuces, but they have got to be shaded at all times from sunshine. This is also the best way to get up a stock of fine, large tubers; one year old planted out tubers are usually as large as two year old pot grown ones. When the plants begin to die down in fall they should be cut over, and the tubers lifted and stored close together and one kept in flats filled with earth or sand and kept moderately dry, and after a few weeks perfectly dry. Gloxinia tubers should not be kept in a cool place in winter, from 50° to 55° is a safe temperature, but less than that is risky.

Cut Flower Quotations.

Perhaps if "A Grower" (page 334) were also a buyer he would not find your cut flower quotations amiss. There are



GROUP OF GLOXINIAS. TWO-THIRDS NATURAL SIZE.

several ways of accounting for the discrepancy between the prices quoted and those received by the growers. first the prices quoted are always for selected blooms in the pink of condition, and no

grower can send his commission man any quantity of *only* first-class flowers. Then the buyers frequently offer so much for a box of assorted roses or other flowers and the commission man does not feel

justified in refusing a fair offer. Then again there is always some waste. And lastly the large growers generally crowd their smaller brethren to the wall, be the commission man ever so impartial. A

New York florist orders Taylor's Cusins, or a Philadelphia florist, Dennison's Bennetts, and can Mr. Allen or Mr. Pennock refuse to recognize a grower who has made their reputations? The small grower may have just as good Cusins or Bennetts but the others are called for and his must await another customer. When all these facts are taken into consideration it does not appear strange that prices realized are much lower than those quoted. So before condemning the FLORIST for putting Romans at \$4 to \$6 when we are only getting \$3, let us buy some and see what price we are asked.

JOHN WELSH YOUNG.
Germantown, Pa.

Nomenclature.

S. A. F. Committee on Nomenclature.

JAMES D. RAYNOLDS, Riverside, Ill., Chairman.

Roles:

ROBERT CRAIG, 49th & Market Sts., Phila., Pa.
EDWIN LONSDALE, Chestnut Hill, Phila., Pa.
ERNEST ASMUS, West Hoboken, N. J.

Caranations

A. E. WHITTLE, Albany, N. Y.
JOHN THORPE, Pearl River, N. Y.
WM. FALCONER, Glen Cove, N. Y.

Palms, Ferns, and like Decorative Plants:

CHAS. D. BALL, Holmesburgh, Phila., Pa.
JOHN BURTON, Chestnut Hill, Phila., Pa.
W. R. SMITH, Botanic Garden, Washington, D. C.

Chrysanthemums:

JOHN THORPE, Pearl River, N. Y.
WM. FALCONER, Glen Cove, N. Y.
J. M. KELLER, Bay Ridge, N. Y.

Bodding Plants:

G. L. GRANT, 54 La Salle St., Chicago, Ill.
ROBERT CRAIG, 49th & Market Sts., Phila., Pa.
J. M. KELLER, Bay Ridge, N. Y.
A. E. WHITTLE, Albany, N. Y.

Orchids:

DAVID ALLAN, Mt. Auburn, Mass.
BENJ. GREY, Malden, Mass.
WM. FALCONER, Glen Cove, N. Y.
J. FORSTERMAN, Newtown, N. Y.

Mrs. Alpheus Hardy.

THE "OSTRICH PLUME" CHRYSANTHEMUM.

To the old question of—What is in a name?—a superficial answer would assuredly be in the negative. But this question has a deeper meaning than is apparent on the surface.

We all know that a name does not change the character of anything. It retains its essential characteristics no matter what the name. Yet a name, to be true to its purpose should betoken the thing named.

If this principle was always applied in the naming of plants we should, as horticulturists, be considerably the gainers. And it is to be regretted that raisers of new varieties should nearly all ignore this principle. Who cares whether some man's name should be perpetuated by bestowing it as the name of some desirable plant? No one cares but the man whose name is used. But every interested person cares when the new variety is named according to its characteristics, or by a name that is in itself attractive.

That there is something in a name is completely proven by the care that is given in the naming of new books. Not the least part of the author's study is given to the question of what name his creation shall bear. And so it should be in the naming of plants. For a good and striking name helps to sell the plant as well as the book.

How much more attractive and desirable is the name the "Bride" than the name "Cornelia Cook," "Meteor" than "Wm. Francis Bennett," "Perle" than "Catherine Mermet," "Moonlight" than "Robt. Bottomly."

It is in recognition of this principle that the name "Ostrich Plume" has been

appended to the chrysanthemum originally called "Mrs. Alpheus Hardy." No observant man but will acknowledge that the attractive title thus given to this chrysanthemum does materially increase its sale. Naturally it will be so. Hundreds that are not florists will have their attention attracted by such a designation when its original name of Mrs. Alpheus Hardy would mean nothing at all.

It is not apparent why florists should be censured for using any legitimate means for increasing their business. All sorts of schemes are used by advertisers to attract notice, and this case in question is but one of them. Neither can it be classed as an advertisement with the intent to deceive. No florist but knows the original name, and therefore it is not likely that he will be misled. And if the amateurs only notice the name in larger type and place no importance to the other one that is in smaller type, what harm is done? There is no purpose to send out as a new chrysanthemum one already in commerce, neither can it be said that there is mischievous misrepresentation. It is, however, an encouraging feature of the future of our business, that such searching criticism is met with on every side, causing every honorable florist to value his reputation more than his profit.

ALFRED E. WHITTLE.

MR. EDITOR.—I have just read a reply by Mr. Alfred Henderson to Mr. May, that is to say an article attacking Mr. May's common sense, his ability to judge and act fairly, his knowledge of the "art" of advertising successfully, etc. He expresses his surprise at Mr. May's criticism. Surely there has been enough said on the various subjects which are included in the business of the committee on nomenclature to convince any one that such practices as the Ostrich Plume advertisement would not be let slip unnoticed. I think that Mr. May's article shows that he *knows too much* about our business to advertise in that way. I suppose likely that putting the name Mrs. A. Hardy in small type on the same page makes P. H. & Co. legally safe, but if their safety is in proportion to the size of type, they are not very safe. Let any person who is not posted in our business be shown page 115 of their catalogue and ask them what is advertised there, I am sure they would say, it's a new chrysanthemum, the White Ostrich Plume. Now Mr. Henderson says they have not re-named the plant. Then what does their engraving mean that says in large letters the Ostrich Plume Chrysanthemum? If that is not adding another name to a plant then what right have they to send a person Mrs. A. Hardy who orders the Ostrich Plume? That would be substitution, and I would like to know whether or not they take the trouble to write each such customer that they have no such variety in stock and send Mrs. A. Hardy, the flower of which resembles an Ostrich Plume.

Mr. H. refers us to page 2 of cover to show us that he has called another variety the Pink Ostrich Plume. That only makes a bad matter worse. Now read the first line of this adv. "We have received from Japan a few plants (the entire stock) of a gorgeous pink variety of the White Ostrich Plume Chrysanthemum." Now what does that mean if there is no variety by that name? Does it not give the reader to understand that there is a plant by that name? And why? Simply because it will create the impression that they have a wonderful variety

which no one else has. They were not satisfied with the use of the name Mrs. A. Hardy because every florist in the land is advertising the same thing. Now let us go back to page 115, try this experiment, lay a strip of paper over the words "The Ostrich Plume Chrysanthemum" (because Mr. H. claims that does not denote the name of any plant). Then what have we left? Just two items of interest, viz: a cut with name Mrs. A. Hardy without any descriptive matter or comment whatever, nothing to say it is large or small, black or white. On the other side we have a something—who could tell what? What professor of the English language could ever tell the description had any reference to the cut on the same page, unless he is allowed to believe that the name of the plant so illustrated is "The Ostrich Plume." Do they say that the flowers of Mrs. Hardy resemble an ostrich plume? If they do I can not find the place. But now try another experiment, cover up the words Mrs. Alpheus Hardy and you have complete sense; the cut, description and all fit snug.

If Mr. H. really thinks the flower of Mrs. A. Hardy looks like an ostrich plume or a poodle dog's tail he has a perfect right to say so, but he does not use the term in any such manner. Hundreds will answer such an advertisement ordering one or more plants, who either have Mrs. A. Hardy already in their own collection, or could and would have purchased it of their local florist, not supposing that they were putting the money into the hands of a wonderfully proficient advertiser and depriving their honest neighbor of just so much trade.

And now, Mr. Editor, you must have considered "The Ostrich Plume" to have been given as a name, for you say we can hardly object to catchy, popular names when the correct name is also given. The only popular name it ever had was Mrs. A. Hardy; it had no other name either popular or unpopular. When they advertised The Ostrich Plume they offered a plant which had no existence, there was no such plant. Mrs. A. Hardy was not known popularly by any other name, they simply used the name as a catch and filled their orders with a plant we all have. I hold that a man has no more right to attach a false name to a plant in order to raise money on it than he has to attach a false name to a check. Nothing that will lead to deception is just or honest, even though it be done by a person able to teach Mr. May how to advertise.

You say, Mr. Editor, there is hardly any necessity for ventilation. I consider that the hole left in that adv. through which to creep is so small that a good strong ventilator is necessary, such a one as Mr. May advocates in his model greenhouse, one that opens from the ridge. It is the only apparatus which will prevent blight from injuring the florist business. And our nomenclature committee I trust are drawing plans for it now.

C. B. WHITNALL.

Sulphur as a Fungicide.

BY S. B. GREEN.

[Read before the Society of Minnesota Florists.]

Fungi are divided into two classes. All the members of one group live on dead or decaying organic matter and are called saprophytes. Familiar examples of this class are our common toad-stools or mushrooms, the slime molds, yeast plant, and the plant which produces dry rot in timber. The other section consists of fungi

that live on living organized tissue, and are consequently called parasites. Familiar examples of these plants may be found in the rusts which destroy wheat and other grains; the rot of grapes, apples, potatoes, etc.; mildew on grapes, lettuce and roses; blight on strawberries, onions, apple, pear and plum trees, cherries, etc.

The diseases common to animals come also in this class, and we find that cholera, consumption, typhoid fever, and many other diseases are clearly due to the growth of some minute fungus in the tissues of the organic matter, the growing of which in the tissues, together with nature's attempt to apply relief, causes the symptoms we term disease. The life history of most of these low organisms is very complex, and on this account and their minute size they are very difficult to study.

Among American farmers and gardeners it is only quite recently that intelligent thought and inquiry regarding these important sources of loss has been awakened. It is difficult to give an idea of an organism which is so small as to be scarcely discernable, except by a microscope of very high power, and yet one which has such great power for mischief.

CHARACTERISTICS OF FUNGI.

A fungus is as truly a plant as the rose bush or grape vine on which it grows. It is, however, of much simpler structure; but it is sufficiently complex to adapt it most completely to the offices it has to perform. A rose bush, or corn plant, has flowers, leaves, roots and other distinct organs which fulfill a distinct and special purpose in building up the plant, while a fungus consists of simple minute threads which spread throughout the substance on which it grows. These threads are called mycelium, and form the fungus plant itself. The mycelium spreads through the plant tissues on which it grows, and at different periods it ripens a crop of spores. These spores are analogous to seeds and fulfill the same office. For an example let us consider the common puff-ball mushroom (*Lycoperdon germatum*). The plant itself is in the soil, and appears like a mesh of fine white threads. It may grow there for several years without fruiting if conditions are not favorable. The edible portion is only the fruit and its receptacle, and is the mushroom. When ripe the puff-ball is found to be full of dust, each particle of which is a spore. A single puff-ball will contain many millions of spores, so light as to be carried on the gentlest breeze, yet each one is capable, when brought into favorable conditions, of reproducing itself many million times.

To a great extent, what is true of the puff-ball fungi, which are large and tangible, is also true of their minuter brethren which produce the mildews and blights, although these latter can only be studied by lenses of high power.

Fungi do not need leaves because, like dodder and other flowering parasites, they live on the food which is digested by the plants in which they grow. The plants on which fungi live are called host plants.

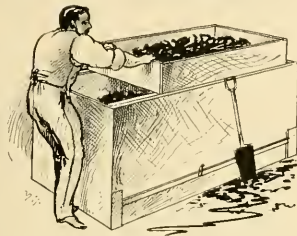
The mycelium, of most species of fungi, penetrates so deeply and is so thoroughly protected in the tissues of the host plant when once established that it cannot well be got at. On this account the best remedies for fungus growths are those of a preventive nature. That is, the spores must be destroyed before maturity; or else before they have penetrated the tissues and are beyond the reach of fungicides. There are some exceptions to this rule, and mildews, such as those of roses,

grapes, etc., which grow near the surface or in the bark, may be easily destroyed at any period of their growth.

Fungus diseases develop most rapidly on sickly plants, in a warm, moist atmosphere. Yet under favorable atmospheric conditions any plant may become diseased although in apparent vigorous health when attacked. It is therefore important to have at all times, if possible, some fungicide present in the air to destroy any germs which may find lodgement on the tender foliage. This is especially necessary in greenhouses, where, from the favoring state of the atmosphere, these growths are very abundant. A good fungicide for greenhouses must have the property of destroying these spores, while at the same time it must be harmless when in contact with the tender plant tissue.

THE APPLICATION OF SULPHUR.

It is well known by all greenhouse men that sulphur when put on steam or hot



SIFTING SOIL.

water pipes is vaporized, and is beneficial in preventing mildew, and it is a common practice to paint steam and hot water pipes with linseed oil and sulphur. But this can only be successfully done when the pipes are very hot, and such is not the case with greenhouse pipes in warm weather.

I wish to call your attention to a method of using sulphur, which while not new, is nevertheless not well known. I refer to the practice which is now being largely adopted in the Eastern States, of vaporizing sulphur over the flame of a stove. It is not well known that when sulphur is burned so that its fumes come in contact with tender plant tissues it destroys them. On this account it has been found dangerous to burn sulphur with tobacco stems in smoking greenhouses, as Nanz & Neuner at one time did in their houses.

Sulphur melts at a heat a little above that of boiling water (at 259° F.), and it takes fire at 500° F. It has been found, in experiments on a large scale, that if sulphur is slowly boiled at a temperature of from 250° to 400°, the sulphur itself is evaporated without burning, and the vapor from this boiling sulphur is one of the best fungicides known. It acts the same as if it were put on hot steam pipes, only with greater power. The common method of using it is to put on a kerosene stove a small iron kettle containing about two inches of sulphur, which is carefully melted and evaporated. In using this method of destroying mildew, etc., great care must be exercised to prevent the flame from being too hot, or the sulphur will take fire. I have known of several accidents occurring when the lamp was lighted and the wick turned too high; but by setting the sulphur kettle in a dish containing sand over the flame, the dan-

ger is almost entirely removed. But while I know there is a chance of accidents happening, yet its advantages are such that if ordinary care is used they are reduced to a minimum. I have known of rose mildew and rose leaf blight being successfully treated by means of this plan of using sulphur.

Mr. W. Wood, of West Newton, Mass., a short time ago told me his experience in using sulphur in his greenhouses for a remedy for red spider. He is a man who yearly takes a large number of prizes at the shows of the State Horticultural Society. He has written out his experience as follows: "In 1884 the red spider appeared on two of my eighteen vines the first week in August and so injured the foliage that the fruit ripened imperfectly. The following year the spiders appeared on all the vines the last of July. The foliage commenced turning brown and their webs covered the under side of the leaves. I procured some flowers of sulphur, and using an ordinary sauce dish of glazed granite ware, put in the sulphur to the depth of one and a half to two inches, placed it over the blaze of an oil stove and boiled the sulphur three and a half hours, filling the room with the vapor. The next morning, by the most careful examination with a microscope, I could not find a live spider in the house. From that time on the new foliage was as clean and bright as in the early part of the season, and the fruit ripened perfectly. I have found evaporated sulphur effectual in destroying mildew which occasionally appears in most cold greenhouses."

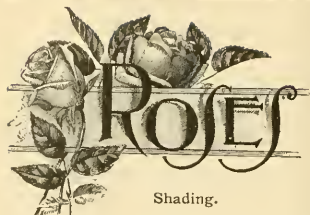
Mr. Wood also finds this remedy effectual in preventing the fungus that causes the dropping of the leaves of chrysanthemums after they have been potted in the fall.

BURNING SULPHUR.

Burning sulphur is much more effectual than evaporated sulphur in destroying fungus, and while it can be used in safety is much to be preferred. After careful and repeated trials on a large scale I am confident that there is no danger of injury to dormant deciduous plants from burning sulphur. I think that it may almost be used without limit. I have repeatedly burned as much as a large teaspoonful of sulphur by putting it on a red hot brick, in a cellar only 10x12x6 feet in size, and this amount when burned would so fill the space that man could not breathe in it, yet roses, plums, apples, elm and many other dormant plants stored therein were uninjured. In fact, I have used it so often successfully that I should hardly feel sure of carrying roses through the winter in my cellar without it, and not have some injury from fungus. I have also found it a good practice to burn sulphur in vegetable cellars.

Sifting Soil.

The accompanying sketch shows a handy device for sifting soil for potting, which, while not new, is probably not as widely known and appreciated as it should be. It can be put together by any one handy with saw and hammer. The sieve slides on hardwood strips fitted just below the inner edge of the box. The bottom of the sieve is of wire cloth having a mesh of 1/4 or 1/2-inch as preferred, strengthened by an iron rod running lengthwise through the center. It is well to have several sieves of different meshes when differing degrees of fineness in the soil is required. The board extending along the side of the box at the bottom is moveable and the sifted soil is taken out through the opening made by its removal.



It may not be generally known that some shading, now the hot sunny days are here, will be of advantage to the roses Mme. de Watteville and Mme. Cusin.

The shading, however, must be of a light character. A mixture of naphtha and white lead, sprinkled over the glass by a syringe will be found of easy application and of the right nature to prevent scorching without obstructing light. Care must be taken to have this shading thinly applied. A calm day selected and a careful man to use the syringe. If the application is found to be too thin it is easy to apply the second time. Far easier than to rub off an excess. Commence with the least possible shade first and let experience decide as to the necessity of increase.

Difference in construction and location of greenhouses determines in a great measure this question of shade. How much, or none at all. With the modern style of rose house, having large glass, no rafters and a full southern aspect, a little shading will usually be found of benefit, especially for the roses above mentioned. This has been satisfactorily demonstrated within the past April. As soon as the bright days came after Easter the Wattevilles began at once to deteriorate in size, but with a little shade on the glass the size is again as formerly. The rose upon the center benches do not require this protection as soon as those upon the front benches do.

It is worthy of notice that all those roses whose size lessens as warm weather advances require cool temperature to have the flowers in perfection. And these are the roses that in fact do the best with a few degrees less heat in winter nights than those others which are not so affected by intense sunshine and heat. It will be found that the fact here stated can be used as an accurate guide in determining the character of our rose houses for next winter. If we are obliged, in some instances, to plant two kinds in one house let us select those of like requirement as to temperature. There is a marked difference in the habits of roses in this respect. It is not advised, however, that there should be much difference if any, in the temperatures that our rose houses are kept at with sun heat in winter.

There are no roses that are likely to prove of more value to those florists who need plants to flower outside during the summer months than the old varieties *Malmaison* and *Duchess de Brabant*. Good plants of these from 4-inch pots planted outside in May will astonish many by the profusion and quality of the flowers that they will produce. Attend to them and they will repay the labor and care expended upon them. *Duchess de Brabant* is of particular value as a plant for spring sales in pots. There is no rose that can surpass it in this respect, very few that can equal it.

ALFRED E. WHITTLE.

A Contrast.

The accompanying sketch shows the

exact size of two *Mermet* buds received among others on consignment by a Chicago dealer. The largest one is merely a good average bud. The smallest one—well, we would have found it difficult to believe that any grower could have had the conscience to send in such a thing to sell had we not seen it with our own eyes, but there it was and a lot more like it, some being nubbins even smaller than the one shown, and every one counted and included in the memorandum sent with them by the grower.

Could there be any better evidence of the absolute necessity for some sort of a classification of roses and other cut flowers as to quality?

Marketing Cut Flowers.

BY JAS. D. RAYNOLDS.

[Read before the Chicago Florists' Club.]

Gentlemen of the Chicago Florist Club, the subject for debate this evening is, Whether the method of marketing cut flowers, etc. through commission dealers is or is not a satisfactory method. I assert that it is not, yet desire it to be understood that I am not here for the purpose of attacking the dealers, far from it. The dealers are my very good friends and so far as their system will permit have, I am convinced, done their very best to see to it that I have had just and full returns on all consignments. I have no possible quarrel with the commission dealers, but with the commission system I have a very serious quarrel and I now arraign this system and charge it with high crimes and misdemeanors, chief among which and overshadowing all others is that as at present conducted it is responsible for the *wasting* of just that proportion of our whole product that should go and that formerly did go to the making of a legitimate and living profit. In fact, what may be called the text of my sermon is *Waste*. Waste in one shape or another I believe to be the main cause of our troubles and if waste can be stopped the trouble will largely cease. Not only in our business, but in all others the margin between cost of production and obtainable price has been narrowing year by year until now the man who is not able to find a market for all or nearly all of his product is periously apt to find himself doing business at a loss.

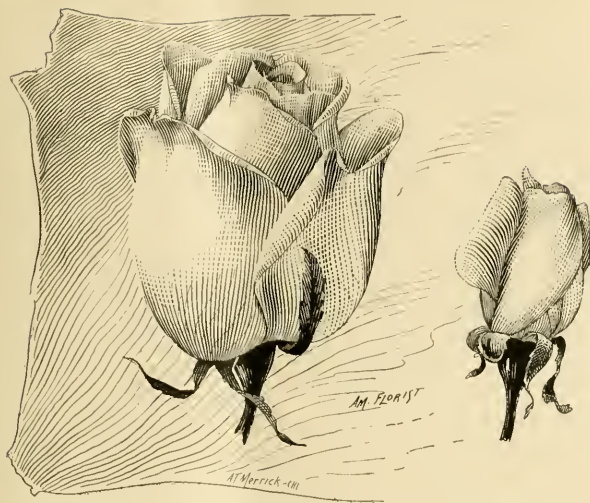
Before endeavoring to show how the present system is responsible for this profit destroying waste it may be well for purposes of comparison to briefly review the past history of our business, to see what methods were formerly employed for marketing flowers and why these methods failed. In the olden time when the demand for all cut flowers in winter and for roses the year round was largely in excess of the supply, it mattered little what method was employed since sales were sure and waste an inappreciable item. Then the retailer was only too happy to make a contract directly with the grower for his entire season's clip, and prices, both retail and wholesale, being sufficiently high, both parties had cause to be well satisfied with the arrangement while it lasted. Then there was a good profit in growing cut flowers and inevitably and naturally competition was invited till very soon growers began to jostle each other and the retailers found their interest in dropping the contract system and buying from day to day wherever they could do the best. This brought in the peddling system and as there were many growers who could not possibly come into the city every day to market their own wares there ap-

peared almost simultaneously on the scene the "commission man" whose ostensible function it was to represent those growers who could not come in person and to market their product for them.

For a time it seemed that there was nothing to complain of; the grower had his option of two courses, each with its advantages and disadvantages. He might go into the city with his baskets and peddle his own stuff, using up valuable time it is true, but saving commissions and selling all of his stuff at such prices as he was able to make from day to day, or he could stay at home and attend to his legitimate business and pay a commission man to sell his flowers for him. So long as there were but one or two dealers the business was in a tolerably healthy condition. There was a constant demand from outside towns on telegraphic orders and the consignor could count with tolerable certainty on having most of his stuff sold if its quality was first class and receiving full list price therefor, less commissions. But production has been constantly increasing, fully keeping pace with the demand, and sometimes apparently even outstripping it and the number of dealers has also been on the increase until I believe it is universally admitted that fond as we are of the dealers and fond as they are of each other, yet the supply at the present time certainly exceeds the demand. It is possible to have too much of a good thing.

Now let us see how the commission system operates under existing conditions. John Doe, grower, sends his stock to Richard Roe, dealer, to be disposed of to the best advantage. He trusts him implicitly—he *has* to. He is obliged to rely on the honesty, the impartiality and the accuracy of not only the dealer but of every one of his employees. And right here let me say that I do not believe but that the dealers are honest and honestly *trying* to give every man his due, but the odds are against them; not only must they be honest above suspicion, but they must become personally responsible for the honesty of their employees. Still, granting as I do that intentional dishonesty is so rare that it need cut no figure in this discussion, yet the difficulties in the path of the dealer in his efforts to give satisfaction to both classes of his customers are becoming so great as to be to my mind well nigh insurmountable. The dealer is supposed to represent the grower, and as his agent to get the highest possible price for all consignments, it being the firm belief of every grower that his stock is A 1 in quality and entitled under all circumstances to the outside listed price. But the poor dealer has his own bread and butter to look after. He has the active competition of half a dozen other dealers as well as of the peddlers (who still hold the field) to contend with, and if he is to keep his trade he *must* meet the prices of these competitors, and in fact for his customers outside the city who order by mail or telegraph it is his plain duty to make the lowest prices possible. The result is a curious complication. It is to say the least rather a difficult situation for any man when his duty and his interest alike require him at the same time to sell at the very highest and the very lowest price.

We are told that the growers may feel assured the dealers will see to it that they get good returns for the sake of keeping their trade, since they cannot do business without consignments, and it is always open to the grower to go somewhere else if he is not satisfied. Well, is it open for



A CONTRAST.

him to go somewhere else, and if so where shall he go? In the first place his period of most intense dissatisfaction is apt to be *after* the holidays when he is by no means sure of being received with open arms and invited to partake of fatted calf by any other dealer than the one he has been shipping to, and more than that he has no reason to believe that any other dealer would be able to do better by him, since all are subject to the same conditions, and in fact it is evident to any careful thinker that it is not any individual dealer who is in fault, but the impossible system on which they are doing business. The active competition between the dealers and the fact that the retailers who buy of them can and do play them off, one against the other and go from one to the other every day to make their purchases, places the consignee at a constantly increasing disadvantage. This disadvantage under which the grower labors has not been recognized nearly as soon as it would but for the misleading and utterly fallacious theory that the commission dealer is a "middle man." People have grown so used to having him called a middle man that they have not stopped to question it and have assumed that as such his function was to preserve a careful balance and do exact justice between his two classes of customers, his sellers and his buyers. I tell you gentlemen he does not do this and he can not do it. He is *not* a middle man in this sense at all. If he were, the see-saw would teter much more satisfactorily, but unfortunately he is about a foot or a foot and a half over towards the retailers, end of the plank, not through intentional favoritism, but because he can't help it. And the reason for it is this: His place of business is in one sense a flower market, but it is a market for the buyer only and not for the seller; by which I mean that it is the retailers' market but not the growers' market. The retailer buys from the commission man. Does the grower sell to the commission man? *Well hardly.* The retailer goes in person to his market,

sees his goods before buying, buys only what he sees a sure sale for, leaving the surplus for the barrel, or if he does not like the style or prices, trots around the corner to another market where, (after extorting the high quality and low prices he was offered over at the other place, and after a sufficient amount of haggling) he secures his day's supply at an agreed price (which is *not* necessarily the list price) and the transaction is completed with no question left unsettled for future disagreement. The grower on the other hand does not go to market with his wares (except in the sense of merely carrying them there, which the express company can do as well). He does not sell his wares at all. He relinquishes all control over them, turns them over absolutely to the discretion of the dealer, trusting with a simple and childlike faith that they will be *sold* for him at the very highest price with the least possible waste and with no possibility of error in making returns. Does this beautiful faith receive its just reward? In another world perhaps it will. Whether it does in this one is a question that you can answer for yourselves. Far be it from me to assert that it does not. The dealers certainly try to stand as straight as possible, to lean neither one way nor the other, but you know it is possible sometimes to stand up so very straight that you will fall over backward, and as I have shown, the immediate conditions are such that the dealer has a very strong tendency to lean towards the buyer and to act virtually as his agent rather than as the grower's agent, which was his original and legitimate function.

There are too many clashing interests, pulling and hauling at the dealer's conscience now. His case is worse than that of a man sitting on a fence and trying to look both ways at once. He tries and tries to look out at the same time for the interests of the grower and of the buyer and of himself, and instead of sitting on a fence he reminds me of a man perched on the business end of a sharp stick trying to face three ways at once and to look

pleasant about it all the time. It can't be done. It is absurd to expect it of him and the sooner we abandon the idea and look out for some better system the better it will be for us.

It might be inferred from what has been thus far said that I believe the retailers to subsist on a diet exclusively of pie, while the growers have the plainest of bread without any butter. Well, perhaps I do believe that the handle of the jug is around on their side as it were, but even they I am told have their grievances, on which some one of them will doubtless when his time comes hold forth much more instructively than I could. But there is a matter to which I must allude, because it is charged with some reason that the growers are responsible for the trouble and could remedy it if they would. I refer to the annoying competition that the first class florists are subjected to by the fakirs, and by fakirs in this sense is meant not only the street vendors, but some apparently regular dealers who by mysterious underground methods seem able to buy and sell at times at prices way below the current quotations, and the conservative retailers are asking with natural indignation "Where, and how, and why do these people get their flowers at prices that enable them to undersell us?" I shall not undertake to answer where and how but I think I can tell you *why*. It is because the devouring element of *waste* is eating the heart out of the growers and they have been driven in self defense to trying to find some outlet for their surplus, some way to check this awful waste that has been increasing year by year until (if there is no back door trade) it now amounts, as I think any grower will testify, to from 25 to 40 per cent of his entire annual clip. While it is true that the wholesale price of cut flowers at holiday time is considerably higher than it was a few years ago, yet the price at most other times is noticeably lower so that the average price the year through has been steadily on the decrease, while the rates between wholesale and retail price remains about the same. Yet mark the difference in the relative situations of grower and retailer then and now. Then they contracted for our entire clip, and they took it and paid for it, and the loss at such rare times as there was a surplus came out of the retailer's profit. Now though prices still average the same he buys only what he absolutely needs, not one flower more, and the surplus is left in the hands of the dealer, to be dumped into the ash barrel unless otherwise disposed of. Can any one wonder that with a wastage of nearly one third his annual clip staring him in the face and a 15 per cent commission to be deducted from what the other two thirds sells for, he is tempted into making bargains with street fakirs or instructing his commission man (on the quiet) to sell at any price rather than have anything left to dump into the barrel. Is it any wonder either that he resorts to the pernicious practice of "soaking" or "salting" down for times of special demand in hope to realize then somewhat to compensate him for the enormous losses in times of over supply. He sees the dealers anxious to hold their trade, cutting each others throats and feels at the same time the same fierce grasp of competition clutching at his own throat. Can any one wonder that he is tempted to take a hand in the ruinous game and by his own ill-advised efforts to recoup himself only do still more to beat down prices, adding fuel to the flame that is consuming all his profits. Let it not be supposed for

one moment that I defend the practice (as at present carried on) of selling job lots at their own price to fakirs and others; it is a penny wise and pound foolish policy, but while human nature remains as it is it will be done and until some radical change is made in our methods of marketing it is useless to try to stop it.

It will be admitted that I have drawn a sufficiently gloomy picture of the situation, and yet I do not believe it is overdrawn. It is certain that there exists a very general and pronounced dissatisfaction with existing methods. The growers are grumbling over the increasing disparity between their shipments and their returns. The retailers are indignantly complaining of the competition of irresponsible fakirs and pirates, of the glaring inequality of prices and the consequent difficulty of maintaining paying rates, while the wholesale dealers in virtuous consciousness of unmerited abuse are about ready to give up life's fiftful fever and fly to a better land where the wicked cease from troubling and the weary are at rest. There are some who in comparing present unsatisfactory conditions with the state of things in former years are ready to claim that the trouble arises from overproduction and that it will not be remedied till the weaker growers are pushed to the wall and the supply reduced to a parity with what is supposed to be the demand. I do not believe it; I do not believe there will ever be overproduction in our business. There are thousands and tens of thousands who can not afford to buy flowers at all when the price is anyways high who would gladly absorb all our surplus in times of alleged overproduction if the price were made to suit. Then why not let them have the flowers instead of dumping them into the barrel? Only the price must be so regulated that all shall have an equal chance.

To my mind the conclusion of the whole matter is that we must agree on and carry out some plan whereby the relation between supply and demand may be more fully recognized and more promptly and uniformly acted upon. Our troubles arise mainly from the fact that the price current as at present understood is an arbitrary and often an entirely fictitious thing. At irregular intervals the dealers, after more or less amicable consultation among themselves, get out price lists, presumably based on the relation between supply and demand. And what is a cut flower price list? It is not too often a *cut rate* price list, a delusion and a snare, a thing to beguile the consignee with, a list to be cut under to varying degrees, depending on the characteristics of the dealer, the bargaining capacity of the purchaser and the kind of a pull he happens to have with the dealer? There is no uniformity of price, no standard of quality, and there can not be so long as we have half a dozen markets in the same city. We must have one market, one authorized arbiter of quality and price, one general clearing house where all the buyers and all the sellers (or their representatives) may come together each day, where the great law of supply and demand may operate naturally to fix the price at which the entire day's supply may be sold. When there is scarcity let competition among buyers advance the price until the demand no more than equals the supply, and when the market is glutted let competition among sellers depress the price until again the demand just equals the supply. But let the stock all be sold and utilized and let all be open and above board, with all buyers and

sellers on a common footing, with no possibility of discrimination in disposing of one grower's stock and slighting another or in making high rates to one buyer and low rates to another.

Whether this can best be done in a general flower market such as are already found in some of the larger European cities, or whether we can improve upon that idea and establish an incorporated "flower exchange" modeled somewhat after the Chicago Board of Trade or similar institutions, is a question I can not attempt to go into at this moment, it is, however, a subject to which I invite your earnest attention after the immediate subject for debate shall have been disposed of. Meantime if I have said anything to persuade you that our present system is inadequate to the needs of the hour and that an imperative necessity exists that we set ourselves at work to better it; if I shall have so far persuaded you that each man will give his earnest endeavor to think out what shall be the very best means for bettering the situation, I shall feel well satisfied that an excellent beginning has been made.

Arboretum Notes.

IX.

The winter just passed has been a severe one on many of the most beautiful varieties of spring flowering shrubs at the Arnold Arboretum. The mild weather throughout fall and early winter, together with the frequent rains, forced many things into bud and leaf and left them in poor condition to withstand the zero weather which came in early part of March.

The result is that very few of the prunuses are in good condition, the flower buds being in many cases killed, most of the rhododendrons are in the same condition, and the magnolias and heaths have suffered considerably. There has not been so much wood killed as usual on half-hardy stuff, the destruction being confined mainly to flower buds on species that bloom early. Weigelas are in much better shape than usual.

That the winter has not been an idle one for Mr. Dawson is evident from the number of boxes of young seedlings and the marks of the pruning knife which are seen on every side.

Good pruners are few and far between, and one is tempted to envy a man like Mr. Dawson who can move along through the rows of shrubbery with knife in hand boldly cutting here and there and transforming crooked or unevenly developed specimens into shapely forms with a touch that seems almost magical.

There are many beautiful and effective shrubs already in bloom.

The double flowering peach is one of the finest of these. The flowers are of a most exquisite shade of pink and the whole tree when in bloom makes a grand show.

Prunus pseudo-cerasus fl. pl. is another superb species, bearing clusters of showy pink flowers, some of the blooms being two inches across.

Pyrus baccata in its many fine varieties is just bursting into bloom. This species should stand pretty near the head of the list as a beautiful spring bloomer, and as it is also one of the most showy in the fall when in fruit its value can not be overdrawn.

Pyrus Sieboldii introduced from Japan a few years ago makes a shapely shrub, being quite dwarf in habit.

Two new species recently received from the Jardin des Plantes, *Pyrus microcarpa macrantha* (white flowered) and *P. Kaido*

(rose), are both well covered with flowers and promise well. The buds on the latter are brilliant red before opening, and in both species the buds are remarkably long.

Ribes sanguinea is now in full bloom, the branches loaded with the pendent racemes of pink flowers. This is not quite hardy here, and requires a slight covering in winter. *Ribes Gordonifolium* in the Rocky Mountains, and supposed to be a natural hybrid has flowers of a peculiar color, being delicately blended red and yellow. This is perfectly hardy. Among the smaller shrubs that attract the attention just now are the popular *Daphne cneorum*, and *D. Genkwa*. The latter is a Japanese species, flowers lilac, appearing before the leaves.

Andromeda floribunda is particularly fine this season, being loaded with flowers. *A. polifolia* with its beautifully shaded pink bells which are borne in umbels on the tips of the branches is also exceedingly pretty.

Spiraea Thunbergii was in full bloom last November. It is in full bloom now, and will not be entirely out of bloom again till next November. What a superb shrub this is. WM. J. STEWART.

Boston, May 8.

Is Primula Obconica Poisonous?

Have suffered two months from what my physician and myself thought was eczema. Had no rest night or day and could not work. After seeing question as to whether *P. obconica* was poisonous I experimented with it and am satisfied that it is poisonous to me. No trouble after the plants were thrown out.

Catskill, N. Y. R. D. MILLER.

—Regarding *Primula obconica* I am convinced that it is poisonous. About five weeks since I had a breaking out between my fingers and on the wrist of my right hand, also on my eyelids and both sides of my nose. The doctor pronounced it Praria ech and prescribed some medicine which cured me, but soon after I cut some more flowers of the primula and am broken out again worse than before. I shall have to throw the plant away, though am really sorry, for it is the best thing I have for small flowers to work into designs. My wife handles the flowers after being cut, but they have no effect upon her. ECKHARDT.

Nashville, Tenn.

—In your last number A. H. Lange seems to think that the flowers of *Primula obconica* do not poison, but I find they are just as bad as the leaves. In making up a design last week I used eight flowers and was badly poisoned—I did not touch the leaves as another person cut the flowers. M. E. POWELL.

St. Peter, Minn.

Hail Insurance.

In the early days of April our city was visited by quite a heavy hail storm (which is unusual in this section) from which we suffered loss with other greenhouses. For several years past we have been members of the Florists' Hail Association, the expense being very small, but until this storm had escaped loss. We at once measured and reported our loss and received a prompt remittance in full payment of same. Through your columns we desire to earnestly commend the Hail Association to all florists as economical, safe and worthy of generous patronage, it being an investment no florist can afford to be without. NEWBY & Co. Loganport, Ind., April 30, 1890.

News Notes.

PETERSBURGH, ILL.—W. T. Stephenson has purchased the florist business formerly conducted by M. L. Fisher.

ALBANY, N. Y.—The project of a fall flower show is being agitated and it is possible that arrangements will be made for an exhibition next November.

SAVANNAH, GA.—The Central railroad is following the excellent example set by the Pennsylvania R. R. and is laying out flower gardens at the stations along the road.

PROVIDENCE, R. I.—At the last meeting of the Rhode Island Hort. Society a very interesting and instructive paper on the "Relation of bees to fruit and flowers" was read by Mr. Samuel Cushman.

BROOKLYN, N. Y.—A "Century Plant" is about to bloom at Condon's greenhouses near Greenwood Cemetery, and it is attracting a crowd of visitors, showing that blooming "Century" plants are of decided value as advertisements.

CINCINNATI.—By the will of Mrs. Mary Elliott Holroyd, the sum of \$10,000 is bequeathed to the city for the erection of a flower market on the vacant Sixth street market square in this city, to be known as the Jabez Elliott Flower Market.

PITTSBURGH.—The new Phipps aquatic house in the Allegheny Parks is now completed. It is a handsome structure of iron and glass. A splendid assortment of aquatic plants have been received and planted in the tanks by Superintendent Hamilton.

SPRINGFIELD, MASS.—The beautiful grounds of Mr. E. H. Barney at Pecowsc, containing nearly 200 acres, are to be added to the city park through the generosity of Mr. Barney. In addition he has set apart a large sum for the maintenance and improvement of the grounds.

SAN FRANCISCO.—The annual exhibition of the State Floral Society will be held at Irving Hall, May 19. Special prizes in addition to the regular list, of \$50 by Timothy Hopkins for the best and most original floral design, and \$25 by Emory E. Smith for the largest and best collection of tea roses.

LOUISVILLE, KY.—The floral decorations at the recent annual dinner of the Blue Grass Club were quite elaborate. The table, set in the monogram of the club, inclosed a field of live blue grass studded with tulips, pansies and other flowers in great profusion. The decorations were arranged by P. Walker & Co.

BUFFALO, N. Y.—The Buffalo Florists' Club will in the future meet in the rooms of the Society of Natural Sciences, in the Library building. The following questions were discussed at the meeting May 13: What is the most profitable way of utilizing the space beneath the benches of an ordinary greenhouse? Answered by Jno. F. Cowell. Is there any way to change the color of the hydrangea from a pink to a blue? By T. Clayton. Is the Papa Gontier rose any improvement generally over the Bon Silence for the retail trade? By W. A. Adams. Is the Papa Gontier as desirable to grow for the retail trade of Buffalo as the Bon Silence? W. B. Milley.

BALTIMORE.—The principal sufferers from the recent hail storm, among the florists, were Samuel Feast & Son, loss about \$1,500; Holliday Bros. \$1,200;

John Cook \$1,000; Henry Eberhardt \$400; Robert Schmitt \$350; F. Berger \$100; John Eberhardt \$500; Joseph Le Brun & Sons \$200; A. Bassler, Catonsville, \$500. Other glass was broken, but the amount and names of owners not yet ascertained. The total loss by florists will probably reach \$10,000. The greenhouses at Patterson Park were also damaged. Cut flower trade is fair, with prices rather low for good flowers. Perles, Niphotos and Gontiers are wholesaling for \$3 a hundred, La France and Mermets \$5, Bons and Safranos \$1.50, carnations \$1.

SPRINGFIELD, ILL.—The memorial services at the tomb of Abraham Lincoln in this city April 15, were attended by about 5,000 people. The floral offerings were not what they should have been for such an occasion, consisting mainly of anchors, pillows, harps and crosses. Nothing emblematical. The handsomest design was an urn sent by Lincoln Park, Chicago. The Society of Minnesota Florists sent a large pillow, which the local papers said was sent by the "State of Minnesota." There were a wreath of laurel leaves from Mount Vernon, twelve wreaths of laurel leaves from the Turners of St. Louis, a cross and anchor from Wisconsin, a wreath of lilies from "W. R. C." and several boxes of cut flowers which were strewn in the vault.

To the Young Men.

[Extracts from a paper read before the New Jersey Social Florists' Club, by John N. May.]

What are the qualifications necessary to make a successful florist? First—A thorough knowledge of his business. Second—Executive ability. Third—Strict honesty in all his dealings.

The studies most suitable to gain a thorough knowledge of the business are the first to consider. This commences with the first day's employment in this business, by watching carefully how the work is done by experienced hands; no matter how trivial the job may appear to be try to do it well and much will be accomplished from the start. As in all other walks of life many things which are not quite to your liking will fall to your lot, yet if you are determined to become a successful florist you will find them come much easier, and it is absolutely necessary that every one should begin at the bottom of the ladder. Cleaning fires, crocking pots, and many other such like jobs are often not the most desirable things to do, yet they are all important and must be thoroughly understood by every one. All these items offer abundant room for study; to stoke fires in the most economical way is a very important item, as waste and extravagance here means a considerable loss of money in a year; the same may be said of every item and branch of employment. Passing on from the rudimentary point, we come to books, magazines, etc. Of these there are a vast number, all more or less instructive. The ambitious student will try to read as many as comes within his reach, and if he is a careful reader will soon begin to discriminate between good, sound, practical writings and mere theoretical articles; while the latter often contain many things that are pleasant to read and feasible enough on paper, yet they are not always safe to follow in everyday life. The former as a rule are the more sure for us to follow, but even with these it is not safe to accept them in their entirety. It is far better to make a note of anything you read and do not clearly

understand and at a seasonable opportunity ask someone with whom you are associated and whom you think can explain it to you; by such means a new light is often thrown upon it.

It has been well said that we live in an age when it is much easier to learn this business than formerly. This means that the opportunities are much greater from the fact that so many able men have spent years in gathering together valuable data and publishing the same in book form for our benefit and instruction. Such fine works as London's Encyclopaedia of Plants, Thompson's Gardener's Assistant, Rhind's Vegetable Kingdom, Gray's Manual of Botany, etc., were not in existence in the last century, and the gardener then had to spend the best half of his life in acquiring the knowledge that was to support him in the other half. In this our favored time we have the opportunity of profiting from such works as above named and hundreds of others, and by close study learning our business in a much shorter time. But right here let me say that the requirements today to compete successfully in business are much greater than formerly; therefore we have so much more to learn and it is only by close application, careful study and determination to overcome all obstacles that we can hope to succeed. And, although we have so many advantages over our forefathers in gaining knowledge, yet I would earnestly advise you all not to try to run before you can walk, but rather spend a few years longer in gaining a good general knowledge before embarking on your own responsibility; it will be both time and money well spent.

The second item we touch upon is executive ability, this is all important, and for the young beginner requires a special study. A man may be one of the best plantmen in the country, but if he is not able to direct and manage workmen successfully he will never make a success either as a foreman for others or to manage a business for himself. Therefore in traveling around the country from place to place in search of knowledge do not overlook this. A safe plan to follow is to observe where the business is the most carefully and economically managed without waste or surplus labor, yet is done with consistent consideration of all concerned, and try to grasp the whole thing so that you can when called upon do as well or better—I say better here because our aim should always be to improve upon all we learn.

This brings me to the last item I shall speak upon, namely honesty and fair dealing. I need hardly say to you that this is not the least in importance. No man can hope to conduct a business and retain the respect of honest men unless he follows the golden rule, "Honor before Riches." And the word honesty opens up a wide range. It means not only that we must not openly rob our fellow man but it has a very much wider range. It is just as dishonest to waste time by idleness, to recklessly destroy property, or tell an untruth to cover a fault, as it is to take something which does not belong to us. To waste time by idleness while in the employ of others is doubly dishonest by robbing our employer of what is justly his and also robbing ourselves, as it is soon discovered and we are made to suffer in consequence. Almost any employer can soon tell if a boy or man is idling his time away, and it is only a question of a short time before the idle boy or man loses his situation and his employer's good wishes, and you can all readily understand the consequence.

On the other hand any reasonable employer will endeavor to encourage by kind words and deeds the efforts of all who try to faithfully discharge their duties, and are careful not to waste or destroy anything he can possibly help. And let me lastly, impress upon you the absolute necessity of truthfulness in all things, to yourself, your fellow workman and your employer. It is, and always will be, the first grand corner stone toward building up the successful business man and do much to elevate our calling to the highest plane.

SITUATIONS, WANTS, FOR SALE.

Advertisements under this head will be inserted at the rate of 10 cents a line (seven words) each insertion. Cash must accompany order. Flat ads. not admitted under this head.

SITUATION WANTED—In commercial place by a gardener of 28. For particulars, address H. C. care American Florist, Chicago.

SITUATION WANTED—By young man: 8 years' experience in growing roses, plants, and propagation. First-class references. Address: Florist, Postoffice, Pittsburg, Pa.

SITUATION WANTED—By a young man as rose grower in private or commercial place; 10 years' experience. 24 yrs old, single. With best references. Address: J. J. care American Florist, Chicago.

SITUATION WANTED—By practical florist; young man; single; 6 years' experience in growing roses and all greenhouse stuff for cut flower market and shipping trade; makes and fills designs. Good references in the North and South. Address: E. L. care American Florist, Chicago.

SITUATION WANTED—By a practical gardener and florist, one who understands the business in all its branches; skillful propagator and rose grower; married; sober and industrious. Best of references; will not correspond unless wages offered are stated. G. care American Florist, Chicago.

SITUATION WANTED—As florist, by a first class S. plantman, either private or commercial place; single; 10 years' experience; good rose and general cut flower grower; strictly sober, honest and industrious; will expect good wages; five years foreman for present employer. Address: WYNE, care American Florist.

SITUATION WANTED—By an Englishman, age 42, large experience in the growing of orchids, stove and greenhouse plants, fruit, flower, vegetable and landscape gardening, etc. and all things pertaining to the management of a first class private place. Eight years with last employer. Address: HARRY MIXBY, Box 23, Lake Forest, Ill.

SITUATION WANTED—By a practical florist; first class rose grower and propagator of roses and general greenhouse stock, forcing bulbs; good cut flower grower in general. 15 years' experience. Young, single man, competent to take charge. References. Address: Florist, care A. Bridgeman, St. E. 14th St., New York.

WANTED—Two young gardeners. Wages \$15 to \$20 per month and board. A. LAUER, 120 East Broadway, Louisville, Ky.

WANTED—Young man from 16 to 20 years of age as bud cutter; none but those who are used to rapid work need apply. H. W. BUCKBEE, Rockford, Ill.

WANTED—Good man to take charge of commercial greenhouses and grow stock for the trade. W. F. McALLISTER, Monroe St. and Washburn Ave., Chicago.

WANTED—Young unmarried man of good habits, etc., about 25 years of age, on a private place. References required. Salary \$35.00 per month and board. EMIL MALLANDER, Morton Grove, Ill.

WANTED—A position, by a thorough practical florist and gardener 27 years practical experience in all departments of horticulture; 15 years in last situation with a thorough knowledge of laying out ornamental lawns and grounds. Address: R. S. care G. R. Clark & Co., Scranton, Pa.

WANTED—Man to take charge of greenhouses in cemetery; must be thoroughly posted on propagation and growth of cut flowers and bedding stock, and must write and speak English well. A permanent paying position for a capable energetic man. Young man preferred. Address: LETTER, care American Florist.

WANTED—Single gardener; must be lively and willing man, and not afraid to work for assistant foreman, or to act as such later, in place of 40,000 feet of glass; can be well up in cut flowers and plants for the retail trade. State salary to start with, and where and how long you have been. Address: S. B. care American Florist, Chicago.

FOR SALE—\$3,500 dwelling house, 2 greenhouses, 2 lots of ground. Address: MRS. DOERFEL, Sipp St., West Hoboken, N. J.

FOR SALE—Florist business, in a live cottage in Kansas, two lots, good residence and greenhouses within one block of college grounds; 1,500 feet of glass, good stock, will sell cheap, falling health compels me to change climate. Address: Mrs. J. T., care American Florist.

FOR SALE—10-horse power locomotive boiler, has 4-inch and 1½-inch connections, dome, etc., in good condition. For steam or hot water. M. R. SAUNDERS, Bradford, Ill.

FOR SALE—Two greenhouses, north side city of Chicago, filled with choice decorating and flowering plants. Ground rent \$30 a month, lease good for one year and can be extended. Or the whole thing will be for sale to tear down and remove; 3,000 feet double A glass; 600 feet 4-inch pipe, line No. 4 Weathered boiler, rafters, doors, sash, lumber, etc. The whole outfit, including plants, for sale very cheap for cash. PAUL KROHN, 175 N. Clark St., Chicago.

FOR SALE—Florist and seed store, with 5,000 feet of glass on three houses, heated with hot water, with a full and complete stock of plants; prominently located in the center of the city, five minutes from depot; and everything sold over the counter. A good trade in the way of making up decorations and funerals. Reason for selling, want to go west. For particulars, address: J. W. BAHLE, 38 & 40 West Scott Place, Elizabeth, N. J.

FOR SALE—A well appointed wholesale floricultural establishment; 32,000 square ft. of ground, covered with glass, in a lively suburb of New York City. All cut flowers are sold on the premises to first-class retailers, and the demand exceeds the supply. Excellent results given in forcing. Price, \$30,000, one-third cash, balance on bond and mortgage. For particulars, address: THOS. W. WEAVER'S SONS, 46 and 48 Marion Street, New York City.

THOS. W. WEAVER'S SONS,

46 and 48 Marion Street, New York City.

ROSE, TEA-POLYANTHA, GLOTTIDE SOUPERT.

Do you know that this is the most desirable and free flowering pot rose ever introduced? Its cut flowers are very useful for floral work; it is of dwarf habit and a constant bloomer.

— SAMPLE TRUSSES OF BLOOM MAILED FREE. —

The plants can be had of MESSRS. HALLOCK, of Queens, CRAIG & BRO., Philadelphia, JNO N. MAY, Summit, W. J. STEWART, Boston, and of the Introducer as below.

Price, 2½-inch stock, 25 postpaid for \$3.25.
100 for \$12.00 (not prepaid.)

Also, 2½-inch.....	Per 100.
ROSE DUCHESS OF ALBANY.....	\$15; 250 for \$30.
—MME. HOSTE.....	10; 250 for \$20.
—WOOTTON.....	6.
—AMERICAN BEAUTY.....	10.
—GLOIRE DE MARGOTTIN.....	12.
—PERLES, BRIDES, MERMEETS, NIPHETOS, etc., good, @ \$5.	

J. C. VAUGHAN, Box 688, CHICAGO.

GREENHOUSES: WESTERN SPRINGS, ILL.

DUCHESS OF ALBANY.

I have the largest stock in the West, in 2, 3 and 4-inch.

State the size and number you want, and write for prices. Also a few of the leading forcing varieties, in excess of my own needs, for early planting.

M. A. HUNT, TERRE HAUTE, IND.

PUBLIC SALE.

AT THE PHILADELPHIA EXCHANGE,
Third and Walnut Streets,

Tuesday, May 27, at 12 o'clock noon,
CLAYMONT, New Castle County, Del., 20 miles from Broad St. Station, 6 miles from Chester, and 8 miles from Wilmington, on the Phila., Wil. & Baltimore R. R., 1½ acres, frame cottage and five greenhouses, boiler room and steam pipes; well adapted for horticultural purposes.

THE
EMERSON
PATENT BINDER

Price postpaid
75 CENTS.
Address
American Florist Co.
CHICAGO.

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appearance of
the binder when
quite full of

THE
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ROSES.

Good strong young 2-inch pot plants at \$3 per 100, strictly our selection of Teas, Hybrid Teas, and Noisettes, true to name and good varieties. Gen'l Jacqueminot, at \$5 per 100, \$30 per 1000.
GERANIUMS.—Good varieties, our selection, at \$3 per 100. Single and double. Mme. Salleret, at \$3 per 100. **ROSE GERANIUMS**, \$3 per 100.
FERNS.—Adiantum Cuneatum, and Adiantum Decurium, from 4-inch pots, at \$9 per 100.
LATANIA BORBONICA.—5-inch pot plants, at \$4 per dozen; 4-inch pot plants, \$3 per dozen.
AMPELOPS VEITCHII.—One year old plants, at \$5 per 100.
FUCHSIAS.—Good varieties, 2-in. pots, \$3 per 100
COLEUS—25 best varieties, \$3 per 100.
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CARNATIONS.—6 good varieties, \$3 per 100.
VINCA VARIEGATA.—2-in. pot plants, \$3 per 100.
HARRISONII. 2-in. " " \$3 per 100.
PETUNIAS.—Double, 12 varieties, at \$4 per 100.

GEO. W. MILLER,

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A very large stock of young roses of the leading bedding and forcing varieties. Also large stock of same in 5 to 6-in. pots.

The best and newest of **CHRYSANTHEMUMS**, **CARNATIONS**, and a general greenhouse stock.

Also a fine stock of **ALLAMANDA HENDERSONII** and **GRAND DUKE JASMINE**, in 2½ and 3-inch pots, at 6.00 and \$8.00 per hundred.

TRADE LIST ON APPLICATION.

JACOB SCHULZ,

LOUISVILLE, KY.

ROSES.

LA FRANCE.....	Per 100
GONTIERS.....	\$ 5.00
PERLES.....	5 00
NIPHETOS.....	5 00
MERMETS.....	5 00
SOUVENIR DE WOOTTON.....	10.00

These plants are in 2½-inch pots.

JORDAN FLORAL CO.,

706 Olive St., ST. LOUIS, MO.

ROSES FOR FORCING

Fine, well established plants of Catharine Mermet, Niphotos, Bride, Safrano, Papa Gontier, Perle des Jardins, and other choice varieties from 4-inch pots. Price on application.

ELLWANGER & BARRY,

Mount Hope Nurseries, 50th YEAR. Rochester, N. Y.

ROSES.

We are now taking orders for delivery after May 15, on the following vars. 3 and 4-in. pots:

LA FRANCE, PERLE, NIPHETOS, SOUV. D'UN AMI, BRIDE AND BENNETT.
 From now until then we will continue to fill orders on same varieties from 2½-in. pots, same as heretofore. Correspondence solicited. Address

GERMOND & COSGROVE,

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IMPORTED H. P. ROSES,

Worked low in the Mammoth Stock, offer the best results to the florist, blooming freely and giving plenty of cuttings for propagating quickly. Fine plants for sale by the 100 or 1000, at low rates.

Price Lists to applicants. Address

WILLIAM H. SPOONER,

JAMAICA PLAIN, (Boston), MASS.

Rooted Coleus & Alternanthera Cuttings

Coleus Verschaffelti & Golden Bedder, \$1.00 per 100. Alternanthera, in the 4 leading vars., \$1.00 per 100.
JOHN B. FERGUSON, Florist, E. E. Pittsburgh, Pa.

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OUR TRADE DIRECTORY.

AMERICAN FLORIST CO., 54 La Salle St., CHICAGO.

ROSES FOR FLORISTS.

We offer the largest and most complete stock of Roses in this country, straight 2½-inch plants, propagated from thoroughly matured field grown plants, and grown in ordinary soil without manure or any other stimulating material whatever.

OUR ROSES RESIST DISEASE, START QUICKLY, GROW RAPIDLY, AND ALWAYS GIVE BEST RESULTS.

NEW AND SCARCE ROSES OF SPECIAL VALUE: THE QUEEN, best pure white

Ever-bloomer for all purposes.
DOCTEUR REYMONT, new hardy crimson, ever-bloomer; **COMTESS JULIA HUNYADY**, superb golden amber **SAPHIR**, New English Tea; **MME. HOSTE**, best new forcing rose; **JOSEPH METEAL**, Capt. LEFORT, ERMES METZ, MISS ETHEL BROWNLOW, METEOR, **MME. DE WATTEVILLE**, **MME. CUSIN**, **BARGNESS M. WERNER**, **SUNSET**, **VINCUNTES OF FOLKESTONE**, **PAPA GONTIER**, and hundreds of others. All the choicest and best varieties, new and old. **DUCHESS OF ALBANY**, the famous Red La France; **GLOIRE DE MARGOTTIN**, new scarlet perpetual; **EARL OF DUFFERIN**, **SILVER QUEEN**, **BARGNESS ROTHSCHILD**, **MME. GABRIEL LUZET**, **MEYERELLE DE LYON**, **MME. MASSON**, **MRS. JOHN LAING**, **DUNSMORE**, **PAUL SEVYON**, **LA FRANCE**, **COQUETTE DES ALPS**, and all the best Hardy Roses.

NEW POLYANTHUS, **NEW HYBRID TEAS**, **CLIMBERS** and **MOSES**, OVER 500 VARIETIES ROSES IN STOCK. Send your lists and have them priced. We want your orders, and will make prices as low as possible.

HYDRANGEA GRANDIFLORA—A leading specialty, large stock strong open ground plants, all sizes at very reasonable prices. All the newest and best hardy, ornamental shrubs. New Hardy Hibiscus, New Althea Blanche, Viburnum Plicatum, Boists variegated Althea, New Deutzias, New Weigelas, Sweet Scented Honeysuckles, New Chinese White and other Wisterias, Clematis, Akebias, and all best Hardy Climbing Vines. VERY LOW.

CHRYSANTHEMUMS in 100 finest selected sorts. **MOON FLOWERS**, extra strong, propagated from blooming plants, finest Summer Flowering Bulbs, Gladioli, Tuberoses, and Japan Lilies. **FLOWER SEEDS FOR FLORISTS**, including the celebrated Imperial German Pansies in 35 separate shades, and all choicest strains of Flower Seeds for florists' use. Satisfaction always guaranteed. **WHOLESALE PRICE LIST FREE ON APPLICATION TO FLORISTS, MARKET GARDENERS AND DEALERS ONLY.**

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ROSE GROWERS AND SEEDSMEN,

WEST GROVE, PA.

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ROSES A SPECIALTY. ROSES.

THE CLIMBING PERLE DES JARDINS.

TO OUR PATRONS, AND THE TRADE GENERALLY:—We are convinced that this Rose will prove of permanent value—indoors and out. Its continuity of flowering, vigorous growth, large flowers, beautiful in color and form—a true Tea—must commend it to all.

Strong plants Ready April 1st, \$1.00 each; \$10.00 per dozen.

All the Old, New and Forcing varieties on hand, at lowest prices.

WRITE FOR CATALOGUES AND PRICES.

THE OAKS ROSE NURSERIES

ROSES.

Meteor, Mme. Cusin, Perles, Niphotos, Mme. de Watteville, Brides, Papa Gontier, Mermets, Magna Charta, and Gen. Jacqueminot.

CARNATIONS.

Hinsdale, May Queen, Orient, Silver Spray, Paxton and Buttercup
 Strong healthy plants at lowest prices. Write for particulars.

JOHN H. TAYLOR,

BAYSIDE, L. I., N. Y.

ROSES. ROSES.

INCLUDING THE SPLENDID NEW VARIETIES

DUCHESS OF ALBANY, MADAME HOSTE, ETC.

ALSO ALL THE BEST STANDARD VARIETIES OF

TEAS, HYBRID TEAS & HYBRID REMONTANTS.

ALSO ALL THE BEST BEDDING VARIETIES.

I AM now prepared to fill orders for the same in Large or Small quantities, TO THE TRADE, from stock that cannot be surpassed by any in the country, at prices that are as reasonable as first-class can be produced for. Also MIGNONETTE SEED, MY OWN SELECTION.

TRADE LIST NOW READY.

JOHN N. MAY, Summit, N. J.

Roses. Roses.

Madam Cusin, Madam de Watteville, Catherine Mermet, Bride, American Beauty, Papa Gontier, Perle, La France, Niphotos, Bon Silene. Fine, clean, healthy stock only sent.

COLEUS CUTTINGS.

STRONG ROOTED CUTTINGS OFF YOUNG PLANTS, only \$7.00 per Thousand.
 GOLDEN BEDDER alone, \$10.00 per Thousand.

FRANK McMAHON, Sea Bright, N. J.

THE AMERICAN FLORIST

Subscription \$1.00 a year. To Europe, \$1.50.

Advertisements, 10 Cents a Line, Agate;
Inch, \$1.40; Column, \$14.00.
Cash with Order.

No Special Position Guaranteed.
Discounts, 3 months, 5 per cent; 6 months, 10 per cent; 12 months, 20 per cent.
No reduction made for large space.

The Advertising Department of the AMERICAN FLORIST is for Florists, Seedsmen, and dealers in wares pertaining to those lines ONLY. Please to remember it.

Orders for less than one-half inch space not accepted.

☞ Advertisements for June 1 issue must REACH US by noon, May 26. Address

THE AMERICAN FLORIST CO., Chicago.

THE CUT FLOWER TRADE.

The cut flower trade continues to grow and the necessity of new methods to meet new conditions of trade continually presents itself. And certainly the most crying need is some standard of classification as to quality. One which shall be universal throughout the whole country and be simple and easily understood. Then buyers could order intelligently and know what they were going to get, and consignors of poor stuff would know why their returns were small. Then every grower's stock would rest solely upon its own merits. We must keep pace with the times, and some sort of a classification is positively demanded to meet existing conditions.

As this must be national to be of the fullest service, the matter should certainly be taken in hand by the National Society. We suggest that some one be appointed to formulate some plan of classification to be submitted to the next convention. In the mean time our columns are open for suggestions and discussion.

COST OF PRODUCTION.—Regarding this subject a large cut flower grower writes: "The space occupied, in square feet is the safest guide as to results, say how much in dollars and cents does a certain rose yield during the season for each square foot occupied. If a grower can realize \$1 per square foot from what he has under cultivation he ought to make money if growing cut flowers; but in handling pot plants more labor is involved, consequently he should realize a larger amount per square foot in order to make the same profit."

SOME really good blooms of Chrysanthemums Mrs. Heale, Mrs. Jessie Barr, Mrs. Irving Clarke and Jeanne Delaux have been sent by Mrs. S. P. Gardner, Hinsdale, Ill. She states that they were cut from plants in 4-inch pots—January struck cuttings—which having shown a tendency to throw flower buds, had been disbudded to one or two buds and allowed to bloom with the result of some very good flowers. Chrysanthemums in May, and good ones too, indicate that the "Queen of Autumn" is making a successful effort to extend the boundaries of her realm.

MR. E. HOLDEN, gardener to Robert Garrett, Esq., Uplands, Carroll, Baltimore Co., Md., sends us a specimen muskmelon which he states is a hybrid of his own, of robust habit, very free and the best for forcing he has ever grown. The melon sent was of good size and of excellent quality. The flesh is pale red in color, nearly all edible and of unsurpassed flavor.

SOUVENIR de Francois Gailain, Mdle. Augustine Guinoisseau and Souvenir du Baron de Rochetaille are the impressive names attached to three of the new French roses. Convenient little mouthful, aren't they? And wonder what they will look like after they have been the rounds of the catalogues.

QUITE A NUMBER of our readers have forwarded to us letters received from their Congressmen in acknowledgment of the protests against the proposed import duty on plants sent them, showing that a considerable number have made use of the blank form for protest mailed in a recent issue.

BEGONIA DAUGHTREY.—Mrs. Daughtrey writes that the name of her new begonia is that with which this paragraph begins, and that the title "regina" which has called forth a criticism was added by the reporter for the local paper without her consent.

MR. CHAS. L. MITCHELL, Cincinnati, writes us that we have been misinformed as to his having any interest in the Huntsman Floral Co. of his city. He states that he has none whatever.

THE NEW YORK daily papers seem to be worrying themselves considerably over the present whereabouts and future plans of Florist C. F. Klunder.

THE QUESTION now is: What effect will the unusual season have upon the supply of outdoor flowers usually available for Memorial day, May 30.

LATE FROSTS are reported to have done serious damage to fruits and hardy flowering shrubs at many points throughout the west.

Coming Exhibitions.

June 24—25, Boston.—Rose and strawberry exhibition Mass. Hort. Society.

August 19—22, Boston.—Annual exhibition Mass. Hort. Society.

October 28—Nov. 1, Atlanta, Ga.—Chrysanthemum show, Piedmont Exposition Co.

November 4—6, London, Ont.—Chrysanthemum show, Gardeners' and Florists' Club of London.

November 10—14, Philadelphia.—Chrysanthemum show, Penna. Hort. Society.

November 11—13, Boston.—Chrysanthemum show, Mass. Hort. Society.

November — — — Chicago.—Chrysanthemum show, Chicago Florist Club.

November — — — Cincinnati.—Chrysanthemum show, Cincinnati Florist Club.

November 11—15, Indianapolis.—Chrysanthemum show, Society of Indiana Florists.

November 11 — — Montreal, Canada.—Fall show Montreal Gardeners' and Florists' Club.

November 12—13, Worcester, Mass.—Chrysanthemum show, Worcester County Hort. Society.

Nurserymen's Convention.

The fifteenth annual meeting of the American Association of Nurserymen convenes at the Park Avenue Hotel, New York City, June 4.

Among the essayists and speakers will be Professors I. P. Roberts, L. H. Bailey, J. L. Budd, B. E. Fernow, B. T. Galloway; also Hon. H. E. Van Deman, chief of the division of pomology, A. S. Fuller and many practical nurserymen.

Reduced fare has been secured upon all railroads east of Chicago, and reduced rates at the hotel. Any further information

desired may be obtained from Chas. A. Green, secretary, Rochester, N. Y.

Historical.

Continuing your history in the way of the earliest issuing of catalogues in Chicago, we have before us the following, probably the earliest of each firm's issue, having always been curious in these things, and having some thousands saved since about the year 1853.

Martin Lewis, of the Sheffield Avenue Nurseries, which contained greenhouse plants, 1862; A. T. Williams, 1864; Blumenschein Brothers, 1861; Sulzer Brothers, 1863; M. Miller & Son, 1868; Pool's Botanic Garden, 1866; Robert Pouley, 1867; Pettingrew & Reid, 1870; Samuel Muir, W. B. Farrell, and William Lill, without date, but previous to 1870.

The first seed store in Chicago was undoubtedly Hooker & Jones, who in 1857 were at 107 Lake street. We understood they originally had a general store, with seeds in the spring, finally branching out into seeds and implements. The next was H. D. Emery & Co. who started about 1854 or 5, at 204 Lake street. The next to start was A. H. Hovey, also on Lake street, and early in the 60's.

The first greenhouses erected, according to a long account given by C. H. Bragdon in the Chicago *Republican* May 4, 1866 of the florists then known and other horticultural data, and obtained from Samuel Brooks the first florist in Chicago, appears as follows: There were but one or two greenhouses built in the city prior to that of Mr. Brooks (1844, corner of Clark and Adams); one had been erected by Henry Thomas on North Clark street, and another by the Hon. Wm. B. Ogden. The latter was Chicago's first mayor, and the greenhouse likely on his old homestead on the north side. The A. T. Williams before mentioned who issued a catalogue in 1864, built his first greenhouse as a florist in 1855, came west as a gardener to W. B. Ogden about 1853. Out of the list of the 18 firms noted by Mr. Bragdon in 1866, no less than 11 are no longer in existence, while seven are still battling among Chicago's list according to the AMERICAN FLORIST's directory of 126 firms.

Do you know that your list contains a total of 6,687 names? Of these, nurserymen alone count 431. Nurserymen mixed with florists and seedsmen about 400, making nearly 1,000, more or less, in the nurserymen's class. The seedsmen and combinations foot up 450, or so, while those having something to do with flowers, or listed as florists, come up to very near 6,000 names. Fifty years ago there was not probably a score of exclusively florists in the country.

The first permanent bouquet store in Chicago, where work was made up away from the gardens, was opened by the writer March 5, 1867. Early in April Mr. Reissig was also in the field. Previous to that time stores were opened up for the spring months; the first by myself in a basement at the northeast corner of Dearborn and Randolph streets in March, 1859.

EDGAR SANDERS.

WORCESTER, MASS.—The free class in botany will soon begin work at Natural History Hall. An evening class in plant analysis is talked of, and the indications are that it will be very popular. It will be under the direction of J. Chauncey Lyford. Wild flowers will be taken as they appear from week to week for subjects. The floral display at the last monthly exhibition of the Worcester Hort. Society was exceedingly creditable.

NEW BEDFORD, MASS.—E. Y. Peirce is arranging to add a new greenhouse 75x12.

DENVER, COLO.—Mr. and Mrs. Gallup have returned from a seven weeks trip through old and New Mexico and Texas.

OSKALOOSA, IOWA.—The Kemble Floral Company has added 7,500 feet of double thick glass to their plant this spring, to be used mainly for roses.

THOS. YOUNG, JR.,
WHOLESALE FLORIST
20 West 24th Street,
NEW YORK.

LILY OF THE VALLEY,
And the Choicest **ROSES** for the
fall and winter season.

W. S. ALLEN,
WHOLESALE DEALER IN CUT FLOWERS,
36 EAST 23rd STREET, NEW YORK.
ESTABLISHED 1877.
Price List sent upon application.

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Wholesale and Commission Dealer in
CUT FLOWERS,
No. 32 W. 30TH ST., NEW YORK.

Orders to be shipped will receive prompt attention.

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WHOLESALE FLORIST,
34 WEST 29TH STREET,
The Bride, Mornet,
and Ann. Beauties,
NEW YORK.

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WHOLESALE FLORISTS,
No. 1168 Broadway,

Bet. 27th & 28th Sts., **NEW YORK**
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N. F. MCCARTHY & CO.
WHOLESALE FLORISTS
AND JOBBERS IN FLORISTS' SUPPLIES,
1 Music Hall Place, BOSTON, MASS.
Also entrance from Hamilton Place
Branch Music Hall.

We keep a large supply of Fancies and Carnations always on hand. Return telegrams sent immediately when unable to fill orders.

AUCTION SALES OF PLANTS SPRING AND FALL

Wholesale Markets.

Cut Flowers.

	BOSTON, May 10.
Roses, Bon Silene.....	\$1.00 @ \$2.00
" Gontier, Niphetos.....	3.00 @ 4.00
" Parle, Sunset.....	4.00 @ 5.00
" Mornet, Bride.....	4.00 @ 5.00
" Wootton, La France.....	4.00 @ 5.00
" Melanson.....	4.00 @ 5.00
" Jacq.....	12.00 @ 15.00
Carnations.....	1.00 @ 2.40
Violets.....	.50 @ .90
Mignonette.....	4.00
Valley.....	4.00
Tulips.....	2.00 @ 3.00
Harriell.....	10.00 @ 12.00
Smilax.....	25.00
Adiantums.....	1.50

	PHILADELPHIA, May 10.
Roses, Hybrid.....	\$15.00 @ 25.00
" Beauties.....	8.00 @ 12.50
" Mornet, Bride.....	5.00
" Jacq.....	10.00
" Bennetts.....	5.00
" Perles, Niphetos.....	3.00
Carnations, long.....	2.00
Carnations, short.....	4.00
Valley (inside).....	3.00 @ 4.00
Mignonette.....	1.50
Smilax.....	20.00 @ 25.00
Adiantums.....	1.00

	NEW YORK, May 10.
Roses, Bon Silene.....	\$2.00
" Gontier.....	2.00 @ 3.00
" Perle, Niphetos, Sunsets.....	3.00
" Mornet, Bride.....	4.00 @ 5.00
" Watteville, Cousins.....	4.00 @ 5.00
" Bennetts.....	3.00
" La France.....	4.00 @ 6.00
" Albany, Hostes.....	10.00 @ 25.00
" Beauties.....	6.00 @ 10.00
" Hybrids.....	15.00 @ 20.00
Smilax.....	20.00
Carnations, long.....	2.00
Mignonette.....	1.00
Valley.....	3.00 @ 4.00
Adiantums.....	1.50

	CHICAGO, May 12.
Roses, Perles, Niphetos.....	\$3.00 @ \$5.00
" Gontiers.....	3.00 @ 5.00
" Bon Silenes.....	2.00 @ 3.00
" Mornet, La France.....	4.00 @ 5.00
" Brides.....	6.00 @ 8.00
" Ann. Beauties.....	2.50 @ 25.00
" Jacq.....	12.00 @ 15.00
" Bennetts, Dukes.....	4.00 @ 6.00
Carnations, short.....	.75 @ 1.50
Carnations, long, fancy.....	1.25 @ 2.00
Catlas.....	8.00 @ 12.00
Harriell.....	8.00 @ 15.00
Smilax.....	24.00 @ 25.00
Romans, daffodil, valley.....	2.00 @ 3.00
Tulips.....	2.00 @ 6.00
Violets.....	.50 @ 1.00
Adiantums.....	1.25 @ 1.50

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Cut Flowers & Florists' Supplies
— WHOLESALE —
67 BROMFIELD ST., BOSTON, MASS.

GEO. MULLEN,
WHOLESALE FLORIST.
Florists' Supplies Always in Stock.
17 CHAPMAN PLACE,
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BOSTON, MASS.
Orders by Mail, Telegraph, Telephone or Express
promptly filled.

WELCH BROS.,
WHOLESALE FLORISTS,
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We make a specialty of shipping choice Roses and
other Flowers, regularly packed, to all points in
Western and Middle States.
Return Telegram is sent immediately when it
is impossible to fill your order.

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WASHINGTON, D. C.
ROSE BUDS IN ANY QUANTITY SHIPPED
ON TELEGRAPHIC ORDERS,

DIRECTORY.
Every Florist, Nurseryman and
Seedsmen should have one.
AMERICAN FLORIST CO., Chicago.

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79 LAKE STREET, CHICAGO,
Successor to
VAUGHAN'S
CUT FLOWER DEPT.

Our stock is cut with special reference to shipping trade, which comprises the greater part of our business. We therefore claim that we are better prepared to attend to the wants of **FLOWER BUYERS**, outside of Chicago, than any house in the West.

OPEN DAILY: { Week days till 9 P. M.
Sundays till 2 P. M.

KENNICOTT BROS.,
WHOLESALE FLORISTS,
27 Washington Street, CHICAGO.

We always have choice. Fresh Cut Flowers in season. The best packers in the trade. Orders promptly shipped. Store open till 9 P. M. Sundays until 2 P. M.

WIRE WORK A SPECIALTY.
Extra designs made to order. Write for price list.
Consignments Solicited. Telephone #66.

CHAS. H. FISK,
Wholesale Florist
AND DEALER IN
FLORISTS' SUPPLIES,
116 Dearborn Street,
CHICAGO,

Store Open Day and Night.

I keep a full stock of
WIRE DESIGNS
of superior workmanship and at lowest prices. Extra
pieces of any description made to order on short-
est notice. Send for Catalogue.
Mention American Florist.

O. W. FRESE,
WHOLESALE DEALER IN
CUT FLOWERS
And Florists' Supplies.
89 Wabash Ave., CHICAGO.
Store Open: Nights 9 P. M.; Sundays 2 P. M.

LaRoche & Stahl,
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—OF—
CUT FLOWERS.
1237 Chestnut Street, PHILADELPHIA.
Consignments Solicited. Special attention paid to
shipping. Mention AMERICAN FLORIST.

CHAS. E. PENNOCK,
WHOLESALE FLORIST
38 So. 16th Street, Philadelphia, Pa.

JOHN M. HUDSON,
—WHOLESALE—
Commission Dealer in Cut Flowers,
1225 Market St., ST. LOUIS, MO.
Quick sales and prompt returns guaran-
eed. Consignments solicited.

CUT FLOWERS
The choicest Cut Flowers at lowest market rates
shipped C. O. D. Telephone connection. Use A. F.
Code when ordering by telegraph. For prices, etc.,
Address,
J. L. DILLON, BLOOMSBURG, PA.

The Seed Trade.

SEED TRADE ASSOCIATION.

H. W. JOYNSON, Philadelphia, president; ALBERT M. MCCULLOUGH, Cincinnati, secretary and treasurer. The eighth annual meeting at Saratoga Springs, N. Y., June, 1890.

Uncle Sam's Big Seed Barn.

WASHINGTON, D. C., April 24.—Uncle Sam's seed barn is just now in a hum of activity. It is so for about a month every year at this season. Gointo it any time during the next two or three weeks and you will find it a scene of bustle and industry—hundreds of women putting up with rapid fingers myriads of paper packages, men dragging heavy sacks hither and thither, and other busy workers pasting and addressing labels. They must needs be quick, for within a few days \$100,000 worth of seeds of all sorts have to be sent in small parcels to a million different individuals in all parts of the United States. That is the sum annually appropriated by Congress for investment in germs of things vegetable, to be distributed throughout the country in order that products of the soil may be improved in quality. If you would like some you can get a share by simply writing without delay to the Department of Agriculture, Washington—a postal card will do—and making the request. Mention what you want and it will be mailed to you free of charge in a bundle marked "Official Business." If you have no place to grow beans and potatoes in, ask for flower seeds and you will receive enough to make your garden bloom for an indefinite period. Any one can obtain a portion by merely communicating the wish.

Probably this newspaper will not charge anything for advertising the fact that Uncle Sam is distributing this year seeds of a better quality than ever before. Some time ago the seeds given away by the government acquired such a reputation for badness that many farmers would not even take the trouble to plant them, considering it improbable that they would ever come up. But things are managed differently now, and the seeds you get from Uncle Jerry Rusk are accompanied by a guarantee that they will sprout. They are all tested, in fact, before they are sent off, and the manner of this testing is exceedingly interesting.

First, however, it will be best to tell where the seeds come from. Hitherto they have been bought from farmers and seed growers, who sent samples to Washington and received orders on the strength of them. But this year an agent has been employed to travel all over the country and buy up whatever seemed best. The result is that all the seeds now being distributed are exceedingly fine, and the department represents a certain potato it is sending out as probably the most excellent article in the shape of a Hibernian tuber ever obtained by cultivation. It never offered potatoes before this season, by the way. The germs of this wonderful vegetable will be sent to you, if you make the request, 25 "eyes" in a wooden box, all cut up and ready to plant. Of course the notion is that the farmer, observing that the potatoes grown from these 25 eyes are superior to any others of his crop, will keep them for seed, and other agricultural persons in his neighborhood will obtain from him specimens of the vegetable for planting, the product of all that particular district being in this way improved. Such, indeed, is the whole idea and purpose of

the seed distribution—that the vegetables and flowers grown in this country shall be as good and pretty of their kinds as possible.

The seeds bought of the farmers by the agent are sent to Washington in bags, and in this shape are piled in the storage department of Uncle Sam's barn, which is a big brick building just back of the main structure of the Department of Agriculture. An enormous room adjoining is filled with pretty young women sitting at little tables and measuring out seeds from sacks into brown paper envelopes. Some of them use quart pots, others pints, and so on down to mere thimbles with long handles for such little seeds as carrots. Obviously, too, the envelopes differ in size. Each envelope, having received its measure full, is sealed up, and a label is pasted on it, telling what seeds it contains, giving directions for planting them and saying at the bottom: "Please report results." It is desired to know, you see, how the seeds turn out. Finally the packets are put up in bundles of five and tens, and after being addressed they are sent off in this shape. If you ask simply for "some vegetable and flower seeds" you will probably receive ten envelopes of the former and five of the latter. A sample bundle of ten vegetables would very likely contain a quart of corn, half a pint of beans, half a pint of peas and some small envelopes of cabbage, pumpkin, tomato, pepper, radish, cucumber and beet. Quarts are also given of buckwheat and lawn grass. A separate room in the barn is devoted to the putting up of flower seeds, which are purchased from the big seed houses. * * *

Write to the department for the seeds you want and you are all ready to go into business. Own your own kitchen garden; every city family should have one on the window ledge. Flowers will do as well.

Two thirds of the \$100,000 worth of seeds go to Congress, each member of which gets about 5,000 envelopes of them yearly. Usually the department sends them off under instructions from the Congressmen. The remaining one third is distributed by the department as it sees fit. Its generosity is often abused, for people sometimes send as many as a dozen times for seeds in one year. As a rule they get them, too; for it is the policy of the department to be very amiable and to conciliate everybody.—*Brooklyn, N. Y., Times.*

Why don't U. S. go into the grocery business as well?

Import Duty on Catalogues.

The following letter explains itself and reflects great credit on the enterprise of the Custom House officials:

TREASURY DEPARTMENT, OFFICE OF THE SECRETARY.

WASHINGTON, D. C., May 3, 1890. MESSRS. BLANC & Co., Philadelphia, Pa., *Gentlemen:*—Your letter of the 29th ultimo, addressed to the Hon. John Wanamaker, Postmaster-General of the United States, having been referred to this department for proper consideration, you are informed that importations (*) of printed matter (seed catalogues) of the character described by you and sample of which is submitted, are properly dutiable at the rate of 25 per cent. ad valorem under schedule M, paragraph 384, Act of March 3, 1883.

Your sample is herewith returned.

Respectfully yours,

GEO. C. TAIB, Asst. Sec'y.

[* These were single catalogues, priced lists, sent by mail to Messrs. Blanc &

Co., who mailed us the wrappers of the same.—Ed.]

Violet Crops.

Mr. Geo. Klehn, Arlington Heights, Ill., gives in detail the number of blooms cut from his violet house, 10x125, from Oct. 21, 1889 to Jan. 20, 1890, as follows:

Oct. 21.....	200	Dec. 25.....	800
" 23.....	200	" 27.....	300
" 29.....	300	" 28.....	1000
Nov. 5.....	600	" 29.....	300
" 8.....	200	" 30.....	200
" 9.....	200	" 31.....	1800
" 12.....	1100	Jan. 1.....	100
" 16.....	300	" 2.....	300
" 18.....	200	" 3.....	400
" 19.....	500	" 4.....	500
" 22.....	400	" 6.....	400
" 27.....	2000	" 7.....	400
Dec. 3.....	1300	" 8.....	400
" 5.....	200	" 9.....	400
" 7.....	200	" 10.....	400
" 9.....	200	" 11.....	400
" 10.....	500	" 13.....	1000
" 12.....	200	" 14.....	400
" 13.....	200	" 15.....	400
" 16.....	300	Jan. 16.....	1050
" 18.....	300	" 17.....	400
" 21.....	800	" 18.....	900
" 23.....	1000	" 19.....	1200
" 24.....	4500	" 20.....	500

A total of 29,850 blooms, making an average of about 30 blooms from each square foot of bench during the four months.

We also give his record for the previous season, from Nov. 1, 1888, to April 20, 1889.

Nov. 1.....	200	Feb. 18.....	1500
" 3.....	200	" 20.....	2000
" 5.....	300	" 22.....	3000
" 7.....	400	" 23.....	2100
" 10.....	400	" 25.....	2000
" 13.....	400	" 27.....	1500
" 14.....	300	Mar. 1.....	1900
" 18.....	600	" 4.....	2600
" 21.....	700	" 6.....	1200
" 22.....	500	" 7.....	2500
" 23.....	300	" 8.....	2000
" 25.....	1200	" 9.....	1300
Dec. 3.....	400	" 11.....	2000
" 4.....	500	" 12.....	1100
" 6.....	300	" 13.....	2000
" 7.....	200	" 14.....	1200
" 8.....	200	" 15.....	2000
" 10.....	200	" 16.....	1500
" 12.....	100	" 18.....	2500
" 24.....	1800	" 19.....	1100
" 28.....	1600	" 20.....	2600
Jan. 1.....	800	" 21.....	1200
" 3.....	400	" 22.....	3000
" 6.....	400	" 23.....	2200
" 8.....	200	" 25.....	2200
" 10.....	400	" 26.....	1600
" 12.....	200	" 27.....	2200
" 15.....	300	" 28.....	1800
" 17.....	500	" 29.....	2500
" 20.....	500	" 30.....	1500
" 22.....	400	Apr. 1.....	1500
" 24.....	600	" 2.....	1400
" 27.....	500	" 3.....	1500
" 28.....	700	" 4.....	1100
" 31.....	1800	" 5.....	1200
Feb. 2.....	1100	" 6.....	1200
" 4.....	1700	" 8.....	600
" 6.....	1300	" 9.....	1200
" 8.....	1700	" 10.....	1500
" 11.....	1800	" 11.....	1000
" 13.....	1600	" 12.....	800
" 15.....	2000	" 13.....	1000
" 16.....	1900	" 20.....	3000

A total of 106,300, making an average of 106 blooms from each foot of bench during the season. The incompleteness of the record for the past season makes a full comparison impossible, but enough

is given to show that Mr. Klein is correct in his assertion that his violets have not done as well in the season just past as the year previous.

—Mr. Jos. Renard, Unionville, Pa., sends us the following record of violets cut from two houses each 100x9, from October 1, 1889, to March 1, 1890. One half the plants were Marie Louise, one fourth Neapolitan and one fourth Swanley White.

October.....	17,875
November.....	31,750
December.....	24,200
January.....	32,300
February.....	28,025

A total of 134,150 blooms, making an average of about 89 blooms from each square foot of bench space during five months.

—Heathcote, Kingston, N. J., writes: I have 2,847 clumps of the Marie Louise in a house 100x18. They are in two borders each 8 feet wide with a two-foot walk between. From them I have picked 102,615 blooms from November 1 to March 1, a period of 120 days, making a daily average of 855 blooms.

Picked in November.....	7,740
Picked in December.....	19,550
Picked in January.....	34,250
Picked in February.....	41,075

102,615

They are still blooming freely, enabling me to pick over 10,000 each week, and I am reasonably certain of obtaining over 150,000 blooms before the season closes.

The temperature is regulated by one 4-inch pipe set just inside the outer wall, a foot above the plants. Ample ventilation is obtained by having the sash on the lower end of rafters for about four feet above the plate moveable, and so arranged as to be entirely removed if necessary. With an outside temperature of zero I have had no trouble to keep above 35° inside. The house is only eight feet to the ridge pole.

My record of blooms as sent to you was up to March 1. Since then for week ending March 8 I picked 10,400, for week March 15, 14,000, this week will exceed 10,000. The crop for this month will exceed any previous one, and the daily average is increasing—is now over 900—and by the middle of April when I put them out will no doubt be 1,000.

I will then use this house for tomatoes in 10-inch pots, which I will then have ready to set in. I am going to try "The Lorillard," "Livingston's Beauty" and "Dwarf Champion." I estimate I will have room for 300 plants.

The Brick Flue.

In answer to J. C. R., on page 468 of your last issue, I would say that soft coal can certainly be used in the "old fashioned" brick flue without the gas injuring the plants. We have one in one of our houses that has been in use for a number of years. It is laid up with clay instead of mortar and gives us no trouble whatever. I would not advise a flue, however, as steam is much better and more reliable at much less cost after one in.

G. R. MINER.

Hornellsville, N. Y.

Our new trade directory is now ready. Price \$2. Order a copy now.

5,000 Verbenas, 3-inch pots, \$1 per 100; 2½-inch pots, \$3 per 100. All in bloom. Free from rust and mildew. Verschaffeltii and Golden Bedder Coleus, 2½ in. pots \$3.00 per 100; \$4.00 per 100.
Cuts of New York or Philadelphia reference with every order.

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PRIMROSE SEED.

The finest strains of Chinese Primroses. FIFTEEN COLORS.

Packets containing 400 seeds of the best selling kinds, specially for florists. Price per pkt. \$1.00.

Circulars telling how to grow primroses and prices of each variety free. Address
HENRY S. RUPP & SONS, Shiremanstown, Pa.

VARIEGATED CENTURY PLANTS.

I have four plants, about 3 feet in diameter, in good condition which I will sell for \$30.00, packed and delivered at Chicago.

PAUL F. LAU, River Grove, Ill.

CLEMATIS JACKMANNI.

Fine young plants for bedding. Also 2 year plants. Prices on application.

JABEZ JOHNSON, 919 N. Main St., Dayton, O.

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Write for prices on any which you have seen in previous issues and would like.

AMERICAN FLORIST CO.
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GRAPE 850,000 VINES 100 VARIETIES

Headquarters of the MOYER, the Earliest, Best, Reliable Red Grape. Also SMALL FRUITS, TREES, etc. 8 sample vines mailed for 10 cents. Illust. descriptive Price List free. LEWIS ROESCH, FREDONIA, N. Y.

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Dealers in Florists' Supplies,

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Fine, thrifty plants, in 4 inch pots, and 3-inch ready to shift into four s. Bright colors, single and double. Price per hundred, packed in boxes, \$5.00. Special rates per thousand. Address
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AND SEEDSMEN,

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UNITED STATES AND CANADA.

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NOW READY,

Price, \$2.00.

SEND IN YOUR ORDERS.

The new book is a very great advance upon the old one, as we have covered the wbole country by correspondence and obtained original lists of those in the trade in every city and town in the United States and Canada. We believe that the list is now as nearly correct as it is possible to get it.

AMERICAN FLORIST CO., 54 La Salle St., CHICAGO.

While all the florists were busy at the flower show, Mr. Harry Balsley of the Detroit Pottery Co. took good care of the visiting florists. The judges were indebted to him for a very enjoyable drive through Belle Isle Park and the main avenues of the beautiful City of the Straits.

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— GROWERS OF —
DUTCH BULBS, FLOWER ROOTS and PLANTS.
OVERVEEN, near Haarlem, HOLLAND.

[illegible]

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SIAS, LILIUM CANDIDUM, AND OTHER FRENCH BULBS

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and Importers of Bulbs should send their orders as soon as our catalogue is to hand. **WE FIND MANY OF OUR AMERICAN FRIENDS** often wait too long in sending their orders.

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The dyeing is done by a New System, which leaves the Flowers perfect, and the colors proof against sun and dampness.

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LARGEST GROWERS OF

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OF THE VALLEY, ETC.

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50 EXTRA FINE VARIETIES.

	Per 100 Per 1000
Dry Roots.....	\$ 00 \$30 00
Green Plants.....	5 00 40 00
Culcises.....	3 00 25 00
Alternanthera, 8 kinds.....	3 00 25 00
Hydrangea, T. Hoge and Oaklea.....	5 00 25 00
Hibiscus, fine plants.....	10 00 80 00
New French Canas.....	10 00 75 00
Canas, mixed.....	3 00 25 00
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SPECIAL OFFER. Per 100 Per 1000

GLADIOLUS, Grand variety Seedlings.....	12 00	120 00
" large bulbs from choicest col. shades of scarlet & crimson.....	1 25	8 00
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" " white and light.....	2 50	22 50
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" best mixed, all colors.....	1 50	11 10
" Colvill alba "The Bride," for forcing.....	2 00	7 50
" Snow White (novelty) doz. \$2 50.....	12 00	120 00
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TULIROSSES, Pearl or Excelior Pearl, large, well cured bulbs.....	1 75	12 00
Good flowering sizes.....	1 25	9 00
Canas in finest mixture.....	5 00	40 00
" Ehemanni and Noutoni.....	15 00	2 00
" upward.....	6 00	1 00
" Anemones in fine sort.....	2 00	30 00
" " mixture.....	1 50	25 00
" Ranunculus, fine mixture.....	1 00	15 00
" Aplos tuberosa, beautiful climber.....	2 50	40 00
" Madrira Vine, large tubers, per bbl.....	1 00	30 00
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" large ground roots, in separate colors.....	10 00	1 50
" Oxalis Deppe for edging.....	1 00	25 00
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" Cacti, for bedding, in 10 or more good sorts, nice specimens.....	10 00	1 50

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NARCISSUS.

An immense collection and an enormous stock of all the leading varieties, especially of those adapted for forcing. Many acres are now in flower, and I expect I shall have at least

A MILLION

of fine forcing roots to offer this season, and shall be pleased to give prices for any variety for **EARLY FALL** Delivery. A preliminary list has been sent to my customers, and my General Trade Catalogue will be ready shortly.

CLEMATIS.

My stock for Fall delivery will be much heavier than previous seasons. The varieties consist of all the best kinds and may be relied upon. Also many other varieties of Hardy and Half Hardy Climbers.

PYRETHRUMS.

Many thousands of these are grown and form one of the most important families of my Florist Flower Department. Also Carnations, Phloxes, Delphiniums, Pansies, Pinks, Hollyhocks, etc.

HERBACEOUS PLANTS.

The increasing demand for this group, both at home and abroad, has necessitated my adding several acres of fresh stock, in addition to my usual stock which is immense. Every good hardy plant is grown in large quantities, and I shall be pleased to quote prices for anything required.

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An extraordinarily complete collection, every variety of every section worth cultivating will be found described in my Retail Catalogue, published in April. Trade list of Pot Roots published in the Autumn.

HARDY BULBS.

Many acres grown, forming the most important branch of my Establishment, Anemones, Lilies, Chionodoxa, Gladiolus, Begonias, Montbretias, and hundreds of other families too numerous to mention here.

INDUSTRY GOOSEBERRY.

I have a good stock of this for Fall delivery, and shall be pleased to quote lowest price upon application.

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Every variety up to date, including English and Continental, full descriptions of which will be found in my numerous Catalogues, which may be had on application.

THOMAS S. WARE,

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OVERVEEN, near Haarlem, HOLLAND.

Offer to the Trade as usual all kinds of the best

Hyacinths, Tulips, Crocus, Lilies

Narcissus, Roses, Azaleas,

Rhododendrons, &c., &c.

Catalogues free on application to

A. HULSEBOSCH,

P. O. Box 3118. NEW YORK CITY.

Boston.

The cut flower trade has experienced a slight revival since the last report, and trade seems to be quite steady. There is a fair sale for good roses. Carnations are more abundant and prices have dropped. Violets are still in the market but a few warm days will finish them. Pansies are coming in by the bushel and are not worth the trouble of picking. Lilies are not plenty, and callas are getting scarce. Smilax remains scarce and price high for inferior quality. There is a good supply of outdoor tulips. Lily of the valley is still of the indoor kind but it will soon be in bloom outside. Hydrangea plants are particularly handsome this season.

The Gardeners' and Florists' Club held its regular monthly meeting on Tuesday, May 6. The subject for discussion was the "Cut Flower Commission Business," an interesting paper on which was read by Mr. N. F. McCarthy. The subject was handled with caution, and as the same spirit seemed to pervade the audience everything went remarkably smooth considering the dangerous character of the question, so that those who came to the meeting expecting to see a circus went away disappointed. Other matters which were disposed of were some committee reports on certain preparations for the approaching meeting of the S. A. F., and the expression of the club on the matter of duties on bulbs and plants as requested in a communication from Mr. W. Kolker. Had it been generally known in advance that this latter subject was coming up there would doubtless have been some lively talking done. As it was, all the growers present recorded themselves as strongly in favor of the abolition of all duties on plants and bulbs.

Jackson Dawson has a large bed of superb hybrid primulas of which he is justly very proud. W. J. S.

BOUVARDIA PLANTS.

For Spring setting. Davidson, white; Elegans, salmon pink; Pres. Garfield, double pink; Alfred Nemer, double white; strong, healthy plants from 2-in. pots, ready May 1st, at \$1 per 100. Cash with order.

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DRACENA INDIVISA, 15, 18, 21 and 24 inches high, \$1.50, \$2.00, \$2.50 and \$3.00 per dozen.

Strong Rooted Cuttings Colons, mostly Verschaffeltii..... Per 100 \$1.00
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SEND ME \$1.00

And receive, postpaid, 3 of my beautiful new DWARF GOLDEN

ACHYRANTHUS McNALLII,

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Address **E. McNALLY,**
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PLANTS.

Jersey Yellow Nansemond Sweet Potato, \$1.50 per 1000 in May; \$1.00 in June.

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Choice Stock Cheap.

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Geranium, in 20 choice varieties, 2 1/2 in.....	\$5.00
Geranium White Swan, 2 in.....	5.00
Rose Geraniums, 2 1/2 in.....	4.00
Single Primroses, finest strain, 2 1/2 and 3 in.....	4.00
Primula Obconica, 2 in.....	3.00
Smilax, strong, 2 1/2 in.....	1.50
Abutilons, 4 choice varieties, 2 1/2 in.....	4.00
Lantanas, 4 choice varieties, 2 1/2 in.....	4.00
Alyssum, double and variegated.....	3.00
Deutzia Crenata, 2 1/2 in, dormant.....	2.50
Begonia rubra alba, strong, 5 in.....	6.00
Coleus G. Redder, J. Good, Varieg. & L. Red.....	4.00
Chrysanthemums, five varieties, 2 1/2 in.....	3.00
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25 or 50 of any the above at the 100 rate

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	Per 100
Abutilons, of sorts.....	\$ 8.00
Alternanthera, 4 sorts.....	\$ 25.00
Alyssum, double and variegated.....	3.00
Cannas, the sorts.....	3.00
Chrysanthemums, standard sorts.....	4.00
Dahlias, dry roots and green plants.....	6.00
Fuchsias, extra fine sorts.....	\$4.00 to 8.00
Lantanas, sorts.....	\$3.00 to 4.50
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Hibiscus, sorts.....	\$4.00 to 10.00
Larkspurs.....	4.00
Moon Flowers.....	4.00
Pansies, large plants.....	per 100 \$3.00
Roses Teas, including best foreign vars., 2 1/2 in.....	4.00
3-inch pots.....	6.00

Trade list and catalogue free.

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NEW CHRYSAETHUM

"Nymphæa," a decided novelty. Form and fragrance of Pond Lily. Fine for domestic use. A so the cream of the cream of older varieties. Send stamp for plate of "Nymphæa," C and Catalogue.

H. W. HALES, Ridgewood, N. J.

FOREIGN GRAPE VINES.

Large list of Varieties for Planting

Hot or Cold Graperies.

FISHER BROS. & CO.,
MONTVALE, MASS.

LOTUS,
NELUMBUM SPECIOSUM,
AND
WATER LILIES,
ALL COLORS.
AQUARIUM FOR THE AQUARIUM, Etc.
Send for Catalogue.

BENJ. GREY, Malden, Mass.

CLEMATIS, fine young plants.

SMILAX, choice stock.

DAHLIAS, field roots, fine ast.

DAHLIAS, young plants, 100 kinds.

VIOLETS, for extra low prices.

F. A. BALLER,
BLOOMINGTON, ILL.

VERBENAS.
PERFECTLY HEALTHY STOCK.

	Per 100	Per 100
Corn 2 1/2-inch pots.....	\$2.50	\$3.00
FRANKLIN HINZE's White, from 2 1/2-inch pots.....	3.00	25.00

Cash with order.

Address **J. G. BURROW,**
FISHKILL, N. Y.

	Per 100
Ampelopsis Veltchii, 1 year, field grown.....	\$2.00
nice plants from 3-in. pots.....	3.00
Grape Vines Empire State, 2 year, strong.....	10.00
1 year.....	6.00
Pansies, the strain strong plants ready to bloom.....	\$8.00 per 1000, 1.00
Asters Vic, White, sown last November, bloom in June.....	1.00

E. FRYER, Delaware, O.

300 VINCA VARIEGATA.

Strong plants for vases..... \$3.00 per 100
Cash with order.

HENRY EICHOLZ, Westery, R. I.

THE GRAND NEW PINK CARNATION,

"Fred Creighton"

A rival of Grace Wilder, and conceded by experts to be one of the finest pinks ever raised, is now ready.

I have not space to give description here, but just one testimonial.

PHILADELPHIA, Feb. 28, 1890.

MR. GEORGE CREIGHTON, Dear Sir:—I received your circular, just sent for one. It contains full description, and will tell you Messrs. L. Lamborn, Wm. Swayne, Chas. T. Starr, John Thorpe, W. R. Shubert, E. Lombard, W. W. Coles, Sewall Fisher, Louis Siebrecht, H. E. Chitty and others think of this carnation.

Healthy young pot plants, strong and well established, hardened off in cold frames, \$25.00 per 100.

GEORGE CREIGHTON,
NEW HAMBURG, N. Y.

ROOTED CUTTINGS OF CARNATIONS, GROWN BY THE QUANTITY.

My new seedling, Lady Rachel, deep maroon with variegated shading; has no competition among existing carnations; very fragrant, of good habit, early bloomer, nearly all on long stems, \$3 per doz., \$30 per 100. Morning Light, beautiful line, of good merit and early, \$1 per doz., \$20 per 100. Mrs. B. Harrison and Amy, seedlings, \$2.75 per doz., \$18 per 100. Wm. Swayne, \$2.50 per 100. L. L. Lamborn, \$3 per 100. Putnam, White Lapwort, Edwardian, \$1.25 per 100. Hinge's White, Snowdrop, Peter Henderson, Quaker City, Miss Jolliffe, Lady of Orange, Lady Emma, Philadelphia Red, Scarlet King, Portia, Swan, Chester Wilder, Hingdale, \$1.50 per 100. Silver Spar, Grace Wilder, \$2.50 per 100. Grace Fardon, Springfield, Sunrise, \$2 per 100. Buttercup, \$3 per 100. Florets of the above varieties \$1.50 per 100. Cash must accompany all orders. Remittances may be made by Money Orders on Kennett Square, or Registered Letter on Toughkenamon Postoffice. Also can furnish the second edition on Carnation Culture, by L. L. Lamborn, on receipt of \$1.50, on application.

ISAAC LARKIN,
Toughkenamon P. O., Chesler Co., Pa.

CARNATIONS.

Can supply plants from pots or in trays until we plant out.

Hope to have a fine lot of **Field-grown** plants to offer in the **Fall**.

Send for Circular.

W. R. SHELMIER, Avondale, Pa.

CARNATIONS.

YOUNG PLANTS AND ROOTED CUTTINGS.

Send for descriptive price list of sixty varieties, including new varieties of this year.

Geo. Hancock,
GRAND HAVEN, MICH.

NEW SEEDLING CHRYSAETHUM
"ORANGE BEAUTY."

This novelty has been in bloom with us last year from September until June and is now in full bloom. We can supply fine plants in 2 1/2-inch pots at \$1.00 per 10 plants, or \$10 per 100. Also a large stock of Grand Duke Jasmine, 2 1/2-inch pots, \$5.00, and 3 1/2-inch pots, \$7.00 per 100. Jasmine multiflorum 2 1/2-inch pots, \$3.50 per 100. Bouvardia Rockii and Clevelandii, 2 1/2-inch pots, \$1.00, and 3 1/2-inch pots, \$1.50 per 100. Terms, cash with order or satisfactory reference.

FRANCIS MORAT'S SONS & CO.,
LOUISVILLE, KY.

TUBEROUS BEGONIAS, ETC.

\$3.00 per 100 postpaid; by Express, \$2.50.

They will bloom this Summer same as geraniums or verbenas will—this is in answer to many inquiries.

BRAUER & RICHTER,
McCONNELLSVILLE, OHIO.

BULBS. BULBS. BULBS.
SEEDS. SEEDS. SEEDS.
 OUR NEW WHOLESALE LIST for
 '90-'91 is now ready.

Remember
EARLY ORDERS

Get best attention, quickest delivery and special inducements for parties ordering prior to May 1st.

CHINESE NARCISSUS, DELIVERY IN SEPT.
 Specially favorable Estimates.

H. H. BERGER & CO.,
 P. O. Box 1501, SAN FRANCISCO, CAL.
 Mention American Florist.

ORCHIDS! ORCHIDS!
 Many additions of Choice New varieties this season.

Send for New Catalogue.

WM. MATHEWS,
 UTICA, N. Y.

CUT BLOOMS AT ALL SEASONS.
 Mention American Florist.

ORCHIDS
 Cheap as Good Roses.

Send 8 two cent stamps for Catalogue and Plate.

BRACKENRIDGE & CO., GOWANSTOWN, Md.

PALMS.

LATANIA,

KENTIA,

ARECA.

Apply to **EDWIN LONSDALE,**
 WYNDMOOR, CHESTNUT HILL,
 PHILADELPHIA, PA.
 Mention American Florist.

FERNS. PALMS.
40,000

Fern Seedlings, in the following varieties, at \$5.00 per 100, from 2½-inch pots.

ADIANTUM C. ROENBECKII,	PTERIS TREMULA,
" WILLIAMSII,	" ARGYREA,
" LATHOMI,	" SERRULATA var.
" GRACILLIMUM.	Per doz. Per 100

LATANIA BORBONICA, 4-inch pots,	\$3.00	\$25.00
" " 3-inch pots,	1.30	15.00
" " 6-inch pots,	10.00	
PANDANUS UTILIS, 6-inch pots,	9.00	

Also a large stock of **MUSA SUMATRANA**, the best of all var. Bananas, \$1.00 each; \$80.00 per 100.

Address **GEO. WITTBOLD,**
 School & Halsted Sts., LAKE VIEW, CHICAGO.

Fine Dracaena Australis and Indivisa
 24 to 36 inches high; just the thing for cemetery vases and boxes.
 Out of 3-inch pots..... \$9.00 per 100
 Out of 4-inch pots..... \$18.00 per 100
 10 per cent. off for cash.

SCHILLER & MAILANDER,
 NILES CENTER, ILL.
 Give orders to our city office, 730 W. Madison St., CHICAGO, ILL.



Siebrecht & Wadley,

409 Fifth Avenue, NEW YORK, U. S. A.

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SIEBRECHT & WADLEY'S
 NEW CATALOGUE OF
 NEW, RARE

— AND —

BEAUTIFUL PLANTS,

Fully Illustrated and Descriptive.

208 PAGES.

Per Copy, 25 Cents, Postpaid.

THE ROSE HILL NURSERIES,
 NEW ROCHELLE, N. Y.

All Wholesale and Trade Catalogues Free on application.

Mention American Florist.

AMARYLLIS AULICA PLATYELALA, a rare winter blooming variety for cut flowers, \$1 00 each.

" **DEFIANCE**, robust grower, easy and continuous flowerer, very handsome flower, 50 cents each.

AMPELOPSIS VEITCHII, strong 1 year.....	Per Doz.	Per 100.
ARUNDO DONAX VARIEGATA	2 00	15 00
CANNAS, New Dwarf French.....	3 00	20 00
CHRYSANTHEMUM, Mrs. Alpheus Hardy.....		10 00
" 450 varieties always in stock.		

We are short of **E. H. FITLER** and **MRS. W. K. HARRIS**, please offer us these two sorts.

MR. H. CANNELL we call one of the very best yellows for cut flowers. 20 cents.
EDOUD AUDIGUIER. This is a remarkable variety little known. **EARLY**, rich velvet purple violet. Fine for cut flower. 20 cents.
GERANIUM LA FAVORITE, best double white.....\$6 00 per 100.
HARDY PHILOX, 100 best varieties. Our selection.....10 cents.
NEW ROSE CLOTILDE SOUPERT.....\$15 00 per 100

V. H. HALLOCK & SON,
 QUEENS, N. Y.

A NOVELTY.

One of the most valuable **HARDY PERENNIALS** of recent introduction.

THERMOPSIS CAROLINIANA.

Plants 3 to 5 feet in height, flowering in June and July, bearing strong, upright racemes of lemon yellow flowers, very showy. Blooms second year from seed.

I OFFER FRESH SEEDS OF THE ABOVE AT \$1.00 PER PACKET.

WM. J. STEWART,
 67 Bromfield Street, Boston, Mass.

Mention American Florist.

WE HAVE A LARGE STOCK

DAHLIAS.	AMPELOPSIS.
GLADIOLUS.	MOON VINE.
RICHARDIA.	GERANIUMS.
MILLA BIFLORA.	PANSIES.

And a general assortment of Greenhouse and Bedding Plants and Summer flowering Bulbs. Write for Wholesale Price List for Spring, 1890.

MICHEL PLANT AND SEED CO. ST. LOUIS 3 MO.

Chicago.

F. Calvert & Son of Lake Forest, are building a new house 28x100 for American Beauty roses.

Mr. Frederick Mau's sale of orchids at Elison, Flerhsch & Co.'s auction room on April 29 was well attended by both florists and amateurs. Some 400 plants were sold, all at fair prices, and Mr. Mau expressed himself as well satisfied with the results of the venture. A few plants of rare varieties were not sold, but the standard sorts of cattleyas and other orchids whose flowers are useful to florists found ready sale.

Schiller & Mailander have removed their city store to 730 West Madison street.

The tulips and hyacinths are now in gorgeous bloom at the parks.

At the trade meeting held at the Sherman House, Saturday, May 10, the report of the committee appointed at the previous meeting was read, and after considerable discussion, a committee consisting of Messrs. Jas. D. Reynolds, J. T. Anthony, F. F. Bentley, Geo. Klehm and Nicholas Singler, was appointed to secure a charter for a corporation to be known as the Chicago Flower Exchange, and to obtain the names of all desirous of taking stock in the enterprise. The committee was also given power to appoint further committees to assist them in the work of securing members, and to call another general meeting at such time and place as it deemed desirable. In the discussion it was plainly shown that considerable time would be necessary to perfect the organization and put the project of an exchange into practical operation, but the feeling was general that a good foundation had been laid.

At the next meeting of the Florist Club there will be a discussion as to what action the club shall take at this time toward assisting to secure the greatest success for the horticultural department of the World's Fair of 1893.

VERBENAS AND PANSIES.

Verbenas named.	Per 100
Verbenas, mixed Mammoth seedlings.	1,000 \$20, 2.50
Pansies, large transplanted plants.	per 100 \$15, 2.50
Pansies, Fall sown from seed bed, strong	
per 100 \$5.00	1.50
Abolitions in variety.	4.00
Abolition New French.	3.00
Alyssum and Ageratum.	3.00
Antemum coronaria.	4.00
Begonia Rex.	3.00
Coleus Golden Bedder, Verschaffeltii.	3.00
Coleus in great variety.	\$3.00 per 1000 2.50
Cannas, French Hybrids, named varieties.	10.00
Nubias, dry roots.	8.00
Daisies English.	3.00
Daisies Marguerite.	4.00
Feverfew Little Gem.	4.00
Fuchsia Phenomenal and G. Hill.	6.00
Storm King and others.	5.00
Geraniums, great variety.	3.00
Earl Roslyn, Mme. Sallier, Mt. of	
Snow.	3.00
Primula Obconica, 3 1/2 inch.	8.00
Richardia Alba Macnata.	\$3.00 to 10.00
Tuberose bulbs.	1.50
Violets.	3.00
Vine Major V. very strong 4 inch.	10.00
Primula Obconica seed.	1000 seeds, 75c.

Would exchange for some H. P. Roses, young stock.

I. N. KRAMER & SON,
Marion, Iowa.

COLEUS.

Golden Bedder, Verschaffeltii,
Firebrand, Hero, Glory of
Autumn, and J. Goode,
2 and 2 1/2 inch pots, \$2.00 per hundred.

ALTERNANTHERA AUREA NANA,
rooted, \$5.00 per thousand.

S. B. FIELD, Roselle, N. J.

COLEUS.

ROOTED CUTTINGS Will have May 4th to 20th, 50,000 well rooted cuttings of Verschaffeltii, Golden Bedder, J. Goode, Firebrand, Mrs. Hunt, Hero, Rainbow, and others in mixture, at \$7.00 per 1000. Verschaffeltii alone at same rate. G. Bedder alone, \$1.00 per 100.

* PANSIES. *

ALL SOLD.

POTTED SMILAX July 1st, by 100, 1,000 or 10,000.

L. B. 338. ALBERT M. HERR, LANCASTER, PA.

ROOTED CUTTINGS.

Coleus in the leading varieties, including Verschaffeltii and Golden Bedder, per 100 \$10.00, \$1.25
Calceolarias..... 1.50

PLANTS FROM POTS.

Verbenas, in bud and bloom.	Mammoth,	Per 100
" in bud and bloom.	Gen. col.	\$25 per 1000 3.00
ROSES—Jacks, Perle, Mermel, Papa Gontier,		
Niphetos, La France, Cook, Sunset, Saffaro,		
S. D. Ami, Boo Sileas, Brides, and Baltimore		
Belle, strong plants.	2 1/2 in. pots.	\$15 per 1000 5.00
Everblooming Rugos, fine collection	\$5 per 1000	4.00
" 4 and 5 inch pots, in bud		15.00
and bloom.		8.00
Hardy Roses, fine collection, including		
4 and 5 inch pots, in bud and bloom.		\$15 and 25.00
Amelopsis Veitchii, strong plants.		8.00
Achyradus Emersoni and four other sorts.		4.00
Geraniums Splendens and Variegata.		4.00
GERANIUMS—Double Grand, Summit		
Perfection, and best double and		
single sorts, also Ivy Leaved.		4.00
Silver Mt. of Snow, and cut-leaved		
including Rose.		5.00
Pelargoniums, best collection, strong plants.		8.00
Vines, Variegata Splendens, 1 1/2 ft. strong.		10.00
Tuberose, dry bulbs.		2.00
Begonias, Rex types, 3 1/2 inch pots.		12.00
Coleus, best collection, 2 and 3 1/2 inch pots.		8.00
Fuchsias best collection.		4.00
Salvia Splendens.		4.00
Cuba Scandens, strong plants.		8.00
Heliotropa, best collection.		4.00
Pansies.		3.00

Latest Trade List free.

WOOD BROTHERS,

(Successors to I. C. WOOD & BRO.) FISHKILL, N. Y.

COSMOS HYBRIDUS
PLANTS FOR EARLY BLOOMING.

Seed sown in Jan. and Feb. checked to produce early flowers. Many are now in bloom, showing a fine mixture of pure white, deep red, rose, flesh color, and shades of each.

VERY VALUABLE FOR CUT FLOWERS
ON ACCOUNT OF LASTING QUALITY.

Finest mixed; strong healthy plants, \$5 per 100

Try a hundred and you will want more.

20,000 PLANTS NOW READY.

TERMS: CASH.

ISAAC C. ROGERS,

Burlington County. MOORESTOWN, N. J.

G. J. ALBERTS & CO.
BOSKOOP, HOLLAND,

Wholesale Growers of

RHODODENDRONS, CLEMATIS,
ROSES, AZALEAS,

And all other FORCING STOCK,
Coniferae, Evergreens, Etc.

Trade Catalogue on application.

NEW HYDRANGEA.

"RED BRANCHED"—The most valuable of all the Hydrangeas of the Hortensis Class. Without doubt the most valuable of all Hydrangeas yet introduced. Trusses and flowers larger and brighter than those of Otaksa; a very free bloomer, producing large and magnificently formed trusses every shoot. The best kind variety for forcing, and culture in pots or tubs. Catalogue giving description and price mailed free. 50th Year, Mount Hope Nurseries, Ellwanger & Barry, Rochester, N. Y.

PLANTS FOR THE SEASON.

During the bedding season many large plants are often required for baskets and piazzas. Special cheap list as follows. All will be found nice plants for immediate sale. ALL IN FIRST-CLASS CONDITION.

Palms.

12 Handsome palms, 1 1/2 to 3 feet, in 5 and 6-inch pots fit for 7-inch now, 6 distinct sorts, \$5.00
12 Dracena Indivisa, 6-inch pots, 2 1/2 feet and over high, \$5.00
12 Crotons, highly colored, 1 1/2 feet, \$5.00
12 Gardenias (Cape Jasmine), 12 to 15 large buds just opening on each, \$5.00.

Small Plants.

The following will be valuable to all who put them on and fill up houses during Summer after bedding plants are sold. Will make fine plants in a few months.

Ferns.

Adiantum Cuneatum (Maidenhair), 2-inch pots..... \$4.00
Ferns mixed, 20 best sorts, 2-inch pots..... 4.00
" fine, in 4-inch pots..... 8.00

Palms.

Arca lutescens 2 inch pots, 1 ft. 10.00
Cocos Weddelliana, store pots..... 8.00
Latania Borbonica, 2-inch pots..... 6.00
Phoenix Tenuis, 2-inch pots..... 6.00

Other Foliage Plants.

Dracaena, 20 best sorts, 2-in. pots..... 10.00
Crotons, 30 bedding sorts, 2-in. pots..... 10.00
Alcassias, Marantas and others, mixed var 10.00

Bedding Plants.

Geraniums, best sorts, from 4-inch pots, \$5 per 100 also Fuchsias and heliotropes. Well rooted root cuttings of double and single white and pink Bourard as in mixture, \$10 per 1000.

N. STUDER,

Anacostia P. O., WASHINGTON, D. C.

HYDRANGEA OTAKSA, large plants, 50c. to \$2.00 each.

GERANIUMS: Per 100

Gen. W. S. Hancock, 4-in. pots, \$7.00
Mme. Thibaut, 4 inch pots, 7.00
H. W. Longfellow, 4-inch pots, 7.00
Gen. Grant, 4 inch pots, 6.00

W. A. BOCK,

NORTH CAMBRIDGE, MASS.

At One Day's Notice.

FREE BY MAIL.

10,000 young Chrysanthemums, over 100 fine varieties, all styles and colors, named, not less than 5 of a kind, \$2.00 per 100 \$15.00 per 1000.

If you want the best all purpose Yellow Chrysanthemum, try Golden Beauty, it will please you. 25c. each; \$2.00 per dozen.

100 White Rocket Candytuft..... 2.00
100 China Pinks, all styles, mixed..... 2.00
100 Stevia, tall and dwarf..... 2.00

The above plants are all in boxes, and can be shipped in their balls by express, or will be sent free by mail packed in moss.

Orders booked now for rooted cuttings of Stevia, Sweet Alyssum and Feverfew in any quantity, to be delivered in May or as soon as rooted. \$1.00 per 100. Address

J. C. GIBSON,
Woodbury, N. J.

DAHLIA CAMELLIAFLORA ALBA, pot grown roots, \$2.00 per dozen; \$12.00 per 100.

JESSAMINE GRAND DUKE, 3-inch pots, \$2.50 per dozen; \$15.00 per 100.

DION EDULE—Splendid hardy Palm, similar to a Cycas. Nice stems with one leaf, \$3.50 per dozen; \$25.00 per 100.

FICUS ELASTICA. 15 to 15 inches, fine plants, well furnished, \$6.00 to \$9.00 per dozen.

JOHN G. HEINTZ, Terre Haute, Ind.

R. S. BROWN & SON,

Orchids, Palms, Ferns.

Achyranthus, 2 varieties.	Per 100 \$3 00
Abutilons	\$4, \$6 and 8 00
Ageratum, 2 best varieties .	\$3 and 4 00
Alternanthera aurea nana .	3 00
“ Tricolor	3 00
“ Versicolor	3 00
“ Paronychioides	3 00
“ Spectabilis Variegata	

foliage pink 4 00
 Amaryllis Johnsoni, large flowering,
 bulbs 50 cts. each.

Begonias, 40 flowering var. \$4, \$6, \$8, 25 00
 Begonia Rex, assorted. 8 00
 Crotons, assorted. 8 00

Calla, spotted leaf Richardai Alba
 Muculata. \$5, \$6, 8 00
 Cactus, Lobster 8 00

Carnations, assorted 4 00
 Canas, assorted. 5 00
 “ New French 16 00

“ “ seedlings 10 00
 Cuphea (Fire Cracker plant) 3 00
 Coleus, 20 best varieties. 3 00

Chrysanthemums, of sorts 3 00
 Dusty Miller 4 00
 Dracena Indivisa 8 00

Dahlias, of sorts 8 00
 Echeveria Clauca \$3, \$5, 6 00
 “ Rosea \$6, 8 00

“ Extensia Globosa, \$12, 25 00
 Eulalia Gracillima 12 00
 “ Japonica Zebrina 16 00

Forget-me-nots, of sorts 4 00
 Euphorbia Splendens \$4, \$6, 8 00
 Feverfew Little Gem 4 00

Fuchsia, double and single \$3, \$4, 6 00
 “ Storm King 4 00
 “ Phenomial 6 00

“ Mrs. E. G. Hill 6 00
 Glechoma Hederacea, var. groundivy 8 00
 Gladiolus, of sorts, Red 1 50

“ Light \$3, 4 00
 “ Named. 6 00
 Geraniums, assorted. \$3, \$4, 6 00

“ Scented, of sorts. \$1, 6 00
 “ Lady Washington, sorts, \$6, 8 00

Moon Flowers 4 00
 Hibiscus, assorted. \$4, \$6, 8 00
 Hydrangea, assorted \$5, 16 00

Impatiens Sultana 6 00
 Lemon Verbenas 4 00
 Lantanas, of sorts \$4, \$6, 8 00

Montbretia Crocosmaeflora. 5 00
 Oxalis, assorted \$4, 6 00
 Perennial Phlox, of sorts \$6, 8 00

Nasturtium, Darkness, double red. 8 00
 Salvias, assorted 4 00
 Roses, of sorts, Teas \$4 to 15 00

“ H. P. \$6 to 15 00
 Pilea Arborea \$3, 4 00
 Vincas, trailing sorts \$4, 6 00

Verbenas, of sorts 3 00
 Wax Plants 8 00
 Ferns, named kinds, 4-in. pots 25 00

“ “ 2½ & 3-in. pots, 8 00
 Hardy Plants, of sorts \$8 to 16 00
 Orchids, of sorts, \$1 00 to \$3 00 each.

We have many varieties not mentioned here. Also Bedding Plants in great variety. Not less than three plants of a kind sent. No order filled from this list for less than \$3.00.

TRADE LIST AND CATALOGUE FREE.

Robt. S. Brown & Son
 BOX 99.
 KANSAS CITY, MO.

F. R. PIERSON & CO.,

Tarrytown, New York, U. S. A.,

ORIGINAL AND LARGEST GROWERS OF



Lilium Harrisii Better known as The Bermuda Easter Lily

The Best in the World for Forcing for Winter Flowers.

WE OFFER ONLY STRONG FIELD-GROWN BULBS FROM
 OUR OWN GROUNDS IN BERMUDA.

THIS VALUABLE LILY IS OUR SPECIALTY.

We grow the bulbs by the acre on our own grounds in Bermuda. We were the first to grow it in large quantities and to offer it at reasonable prices, and we have always been recognized by the trade as

HEADQUARTERS FOR THE BERMUDA EASTER LILY.

Supplying the trade as we do both in this country and in Europe, and we hold by far the largest and the controlling stock of the genuine variety in the market.

The extent of our operations in this bulb alone will be best understood when we state that we expect to sell from OUR CROP of 1890, over a

HALF A MILLION BULBS.

Be sure you get the genuine Lilium Harrisii. In order to secure "the true variety," purchase your Bulbs from original stock, which is known to be pure. The value of this Lily has led unscrupulous or ignorant parties to plant L. Longiflorum in Bermuda, or grow it there one season and send it out as Harrisii, and dealers should look with suspicion on bulbs offered at prices less than market rates, as the supply has never yet met the demand: "Mixed Bulbs" only being offered at reduced rates.

This is not only the best by far of all lilies for winter blooming, but it is one of the most profitable flowers that can be grown by florists. It is very easily handled, and the flowers being especially effective for decorative purposes, always command large prices. From its name some have thought it was a bulb for florists' use for forcing for the Easter market only. This is not exclusively so; it derives its name from the fact that, in Bermuda, grown in the open ground, it blooms at Easter time—hence the name "Bermuda Easter Lily"—but by growing it in this country in the greenhouse, with successive lots, it can be had in bloom all the winter from early in December until after Easter; in fact, by special culture, all the year round, or as long as cut flowers are in demand. The fact that it can be forced into bloom by the Christmas holidays adds particularly to its value, as it fills in at a time when flowers are usually scarce and in great demand at high prices, but to accomplish this the bulb must be potted early in August, something depending upon after treatment and temperature the bulbs are grown in.

For this purpose our Bermuda-grown bulbs are indispensable, as in Bermuda the bulb reaches its highest development, and ripens off perfectly, and is ready for shipment usually by the middle of July—before bulbs in our country have hardly begun to make their growth. Our bulbs being grown in the open ground, in a climate naturally adapted for their perfect growth, are particularly strong and healthy at any time.

New Crop will be ready for delivery early in August. Orders booked for delivery at that date.

Large growers or dealers in this bulb should write us for special prices, stating quantity of bulbs desired, and we will give lowest estimate on the same by return mail.

F. R. PIERSON & CO.,
 TARRYTOWN, NEW YORK, U. S. A.

A. T. CEFREY'S

Patent Improved
Florists'



Immortelle Letter and
Pin Fastener.

A. T. Cefrey

THIS Company takes an especial pride in presenting to the Florists of America, their Patent Improved Letter for Floral Work, invented, patented and perfected by Mr. A. T. CEFREY, the originator of the Immortelle Letter for Floral Designs, and who, for many years has occupied a leading position amongst his brother Florists for his original and artistic efforts in all that pertains to the floral profession.

We offer to our patrons a **FRENCH IMMORTELE LETTER**, perfectly made by machinery, and covered with **GENUINE IMPORTED FRENCH IMMORTELES**, in Violet, Blue, Scarlet or Pink. We send each separate letter enclosed in an envelope, containing, also, our patent **COVERED IMMORTELE PIN FASTENER**, which can be attached to the letter simply and expeditiously, and will hold the same securely and firmly in place on the design.

The beauty and symmetry of our goods have been the admiration of all who have seen them. Nothing equal to our letters has ever before been attempted. They are not only superior in workmanship, material and general excellence to the old **IMMORTELE LETTER**, but, what is of the utmost importance to florists, they are almost indestructible, being *made by a patent process*, almost as hard as iron, and we guarantee that they will stand transportation, and can be safely sent by mail or express to any part of the country.

It has been our aim to place our goods in the hands of the trade at rates, that, with their great advantages, will ensure for them a ready sale, and will also, from the unusually low prices, largely extend their use in the country.

Florists have heretofore experienced much loss and inconvenience in handling this class of goods, as, being exposed to the air, they lose their brilliancy of color. We enclose each separate letter in envelope, marked upon the outside with the name and color. Each package will be marked with a fac simile of the signature of the inventor, and all infringements will be prosecuted to the fullest extent of the law. 10 cents per hundred for postage.

The Price of the Letters, including the Pin Fastener, is \$2.00 per Hundred.

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CEFREY FLORISTS' LETTER CO.

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A Lesson in Botany from the Hub.

A very funny plant in the government botanical garden is the so-called barber plant, the leaves of which are used in some parts of the east by rubbing on the face to keep the beard from growing. It is not supposed to have any effect on a beard that is already rooted, but merely to act as a preventive, boys employing it to keep the hair from getting a start on their face. It is also employed by some Oriental people who desire to keep parts of their heads free from hair, as a matter of fashion.

Also found in the botanical garden is the "cruel plant," which is so designated because it catches butterflies and kills them for sheer sport. Its flowers attract the poor little flitterer by the honey it offers, and when the victim lights upon it it grabs the butterfly by the head and holds it fast until the captive dies. Then the flower drops it on the ground and lies in wait for another unfortunate.

A curious looking tree from the Isthmus of Panama bears a round, red fruit as big as an apple, which has this remarkable faculty, that its juice, rubbed on tough beef or chicken, makes the meat tender by the chemical power it possesses to separate the flesh fibre. One is interested to observe in the botanical greenhouse three kind of plants that have real consumption of the lungs—the leaves, of course, being the lungs of a plant.

The disease is manifested by the turning of the leaves from green to white, the affection gradually spreading from one spot until, when a leaf is all white, it is just about to die. Cruelly enough, as it would seem, the gardeners only try to perpetuate the disease for the sake of beauty and curiosity, all plants of those varieties that are too healthy being thrown away.—*Boston Transcript.*

THE BUFFALO Florists' Club has issued an advance sheet of premium classes for a chrysanthemum show to be held next fall. Copies may be obtained from the Secretary, Mr. Dan'l B. Long, 457 Main street, Buffalo, N. Y.

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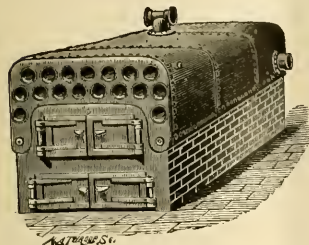
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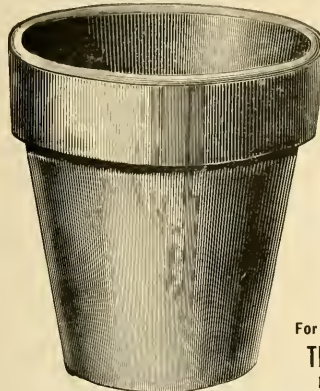
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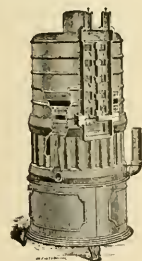
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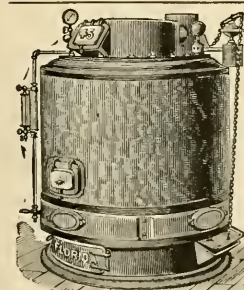
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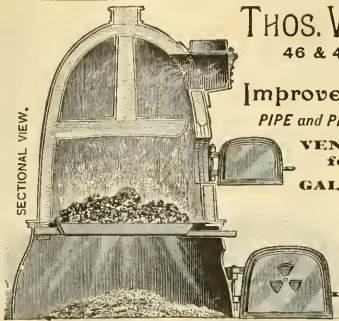
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Index to Advertisers.

Advertising Rates, etc.	451
Alberts G. J. & Co.	452
Aldine Printing Works	453
Allen, W. S.	455
Baller F. A.	460
Bayersdorfer H. & Co.	506
Berger, H. H. & Co.	501
Blanc, A.	504
Boek Wm A.	502
Brackenhoe & Co.	501
Bräuer & Richter	503
Brown R. S. & Son	503
Burrow J. G.	509
Carmody J. D.	508
Cefrey Florists' Letter	508
Chandler Alfred	506
Creighton George	500
De Veer J. A.	500
Devine, Peter	507
De Wit Bros.	497
Diaz, John L. & Co.	507
Dillon, J. L.	495
Dingee & Conard Co.	493
Greer, H. A.	499
Eichholz Henry	503
Ellwanger & Barry	502
Ferguson John B.	504
Field S. B.	502
Fisher Bros. & Co.	500
Fisk Chas. H.	505
Frese O. W.	495
Fryer B.	495
Gardner Jno & Co.	493
Germond & Cosgrove	493
Gibson J. C.	502
Greene W. W. Son &	500
Sayles	500
Grey Benj.	500
Grith, Jas.	501
Grith, N. S.	500
Hall Association	507
Hales, H. W.	500
Hallcock, V. H. & Son	501
Hammond, Benj.	504
Hammond & Hunter	495
Hancock George	500
Heintz Geo. C.	502
Henderson John Co.	493
Herendeen Mfr. Co.	498
Herr, Albert M.	502
Hillinger Bros.	506
Hippard	506
Hitching & Co.	498
Hooker, H. M.	506
Horn, Edw. C.	495
Hoyt R. D.	493
Hudson John M.	495
Hulsebosch A.	498
Hunt P. H.	495
Hunt M. A.	492
Hughes E. G.	494
Hurl Freeman	500
Ives, J. H.	508
Jewett Z. K.	507
Johnson Jabez	497
Johnson & Stokes	497
Joosten C. H.	504
Jordan Floral Co.	493
Jurens W. A.	495
Kennicott Bros.	495

King Jas.	498
Kramer F. N. & Son	498
Krick, W. C.	504
Krombach Charles	506
Larkin Isaac	500
La Roche & Stahl	495
Lau Paul F.	497
Lockland Lumber Co.	507
Long Daniel B.	504
Lonsdale Edwin	501
McCarthy N. F. & Co.	498
McFarland J. Horace	504
McMahon Frank	493
McNally Ed.	500
Macdonald & Sons	505
Mathews, Wm.	503
May John N.	491
Micheli Plant & Seed Co.	501
Mullen Geo. W.	493
Morais F. Sons & Co.	505
Mullen Geo.	505
National Hot Water	507
Heater Co.	507
Nichols Samuel	500
Nielson Hans	500
Pennock Chas. E.	495
Pence Butler & Pierce	507
Pierion F. R. & Co.	503
Plenty	505
Quaker City Mch. Wks.	506
Reed & Keller	506
Reidie Alphonsus	507
Roesch Lewis	497
Rogers Isaac C.	502
Rolker & Sons	497
Ross & Millard	495
Rupp H. S. & Son	497
Schlier & Mairlander	501
Schlegel & Fottler	508
Schultz Jacob	493
Scollay John A.	508
Segers Bros.	499
Shelmire W. R.	500
Sheridan W. C.	495
Shiebrecht & Wadley	501
Sipple Duffell & Co.	507
Situations, Wanted	492
Spooner Wm H.	495
Steffens N.	506
Stevens B. A.	504
Stewart, Wm. J.	501
Strains C. & Co.	496
Sunder N.	502
Syndicate of Growers	498
Taylor John H.	497
Thomson Mrs. J. R.	497
Van Bochove G. & Bro	494
Van der Schouten	499
Vanzanten G. V. & Co.	494
Vanzhan J. C.	492
Ware Thos. S.	492
Weathered, Thos. W.	508
Welch Bros.	495
Whitdin Pottery Co.	497
Williams H. W. & Son	499
Wisconsin Flower Ex.	497
Wildbold Geo.	501
Wolf L. Mfg. Co.	502
Wood Bros.	492
Young, Thos. Jr.	505



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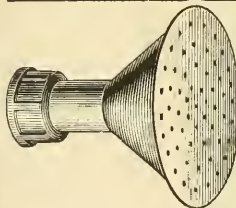
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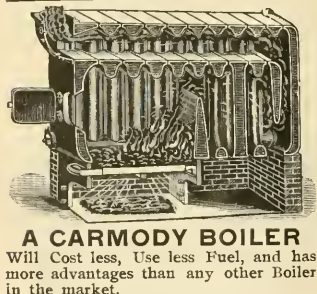
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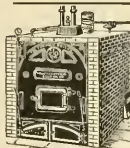
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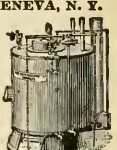
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Vol. V.

CHICAGO AND NEW YORK, JUNE 1, 1890.

No. 116.

THE AMERICAN FLORIST

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J. M. JORDAN, St. Louis Mo., president; M. H. NORTON, Boston, Mass., vice president; WM. J. STEWART, 67 Bromfield St., Boston, Mass., secretary; M. A. HUNT, Terre Haute, Ind., treasurer. The sixth annual meeting at Boston, Mass., August, 19, 20, 21, 22, 1890.

CONTENTS.

Long Island notes	509
Eichhornia (Pontederia) crassipes (with illus)	510
Water lilies from seed	510
Pinching back carnations	512
Desirable ferns	512
New York notes and comments	512
Specimen Adiantum Farleyense (illus)	513
The germination of seed	513
Chrysanthemums—seasonable notes	514
The weather plant (Abrus precatorius)	514
Cocos australis (with illustration)	515
Marketing cut flowers	515
Technical education for gardeners	515
An open letter to Mr. C. B. Whitnall	516
Insecticides	516
Primula obconica	516
New York	516
Detroit	517
Chicago	517
Hartford, Conn.	517
Henry Bennett (with portrait)	517
Orchids—seasonable notes	518
Hardy cypripediums	518
Some rare cypripediums at Mr. Kimball's	518
Fungous diseases of fruit plants	518
Leaves of advice from a limb of the law XIII	519
Florists' Club directory	519
Burning the candle at both ends	519
Shading	520
A new violet discovered	520
Employees	522
Catalogues received	522
Coming exhibitions	522
American seed trade association	522
San Francisco	524
The Boston convention	524
News-notes	524
Color of letters on floral designs	526
Nurserymen's convention	528
2 inch pipes for hot water	530
Look out for him	532
Snails	532
Soft coal and brick flues	534

Long Island Notes.

BY WM. FALCONER.

A BIG CACTUS FOR ENGLAND.—A splendid specimen of *Cereus giganteus*, 12 feet high and weighing about 1,500 pounds has recently been shipped to England, to order, by one of our florists.

THE RAINBOW CACTUS (*Echinocereus candicans*).—A Philadelphia florist has sold, within a year, over 6,000 plants of this beautiful species.

PERENNIAL PHLOXES FROM SEED.—If you wanted to raise them you might meet with some difficulty, for they don't always respond very kindly; but this spring self-grown seedlings came up about our old plants more than thick as crab grass in a corn field.

HERBACEOUS PÆONIAS, Canterbury bells, foxgloves, border pinks and sweet williams are some of the hardy perennials that behaved very well with us when forced for early spring.

"GENISTA CANARIENSIS", PAGE 402.—The proper name of this plant is *Cytisus Canariensis*, and the plant known as *Cytisus racemosus* is only a variety of *C. Canariensis*. Instead of *cytistus* they used to be called *genista*, and if friend McKenna looks through the back numbers of the *FLORIST* he will find these plants often spoken of as *genista*. In London's *Encyclopædia of Plants* the name is given as *Genista Canariensis*. And that is the way it goes; the botanists keep tossing the plants from one species to another and from one genus to another, backward and forward, till we poor sinners of growers get so befuddled that we often don't know which name is right.

THE COMMON BROOM.—"The yellow broom" is also a *cytistus*. It used to be called *spartium* and also *sarothamnus*. You know it's the botanists' business to do this sort of thing, and our business to keep up with them and posted, and there isn't a bit of use in our growling about it. By the way, what a lovely shrub the yellow broom now is. It comes into bloom about the 9th of May and lasts in fine flower well into June. But it isn't always hardy.

CRIMSON-BUDDED SIBERIAN CRAB APPLE FLOWERS.—On May 7, for a family party in New York, among other flowers I sent in a lot of densely budded sprays of a crimson-budded form of *Pyrus baccata floribunda* cut from little trees growing out of doors. And I was informed that they had been selected by the ladies and worn by them as corsage flowers, and they pronounced them "perfectly charming."

THIS SECTION OF CRAB APPLE, and the now much advertised *Pyrus Parkmannii* belongs to it, contains some of the loveliest of all hardy ornamental flowering shrubs or small trees, and they blossom full when only a foot or two high. The

flowers are prettiest in the bud and immediately before opening. The fruits are no larger than peas.

GLADIOLUSES FROM SEED.—Have you observed how much harder one-year old bulbets are than mature bulbs? All the little bulbets left in the ground last fall have come up this spring as freely as if they had been newly-sown grain, and without any restriction from their leathery skin as is usually the case with unpeeled one-year old newly planted sets. At the same time I should disavow anyone leaving his bulbets in the ground all winter, the risk is too great.

GALTONIA (*Hyacinthus*) CANDICANS is hardy enough however, that is in the case of small bulbs, say up to three years old. But I have found very old bulbs to rot off in the ground in winter, while younger ones around them were perfectly healthy.

CLIVENED PANSIES.—Again let me call your attention to these. They are not large, showy pansies for plucking as are the Trimardean, they are what we call bedding pansies, that is, pansies used in masses in spring flower gardening. The colors are clean white, clean yellow, and purple. The plants are of compact habit and extremely profuse; indeed they are the finest pure white and pure yellow bedding pansies I know of. Clivened is the name of the Duke of Westminster's country seat in Berkshire, England, and quite famous for its vast display of spring flower gardening, this fine strain of pansies is the one grown there and improved and perpetuated by careful selection. It comes true from seed.

HARDY DOUBLE-FLOWERED PRIMROSES.—From John Thorpe, a year ago, I got a set of these little beauties, and what charming old-fashioned gems they are. Among them are white, yellow, lilac, purple, red, and crimson flowers and all bloomed beautifully. The purple was the most vigorous and copious, and the crimson had the largest blossoms. I grew them in a cold frame alongside of polyanthus and English wild primroses. We must deal carefully with these double primroses, for they dislike our hot, dry summers, and as we cannot raise them from seed we have got to save our old plants. To increase the stock divide them when growth begins again early next fall, or wait till end of March and then divide them. I have always found it an unsafe plan to divide these primroses just after they have done blooming, very early in May.

ETALIA JAPONICA VARIEGATA didn't live as well last winter as it did in previous years, but the typical green-leaved form and the zebra variety came through the winter as sturdily as ever.

NIGHT-BLOOMING CERES (page 408) is an unhappy name because indefinite, it may refer not only to different species of

TWENTY-EIGHT PAGES again.

ARE you arranging your business plans so that you may safely leave home in August to attend the Boston convention of the Society of American Florists?

ARRANGEMENTS will be made for special cars from Chicago to Boston in August, and florists in the west will be invited to travel with the party from that city. Should the number be sufficient to warrant it a special train will be provided.

one genus, for instance *Cercus triangularis* or *C. Macdonaldæ*, but also to members of different genera, for example *Cercus grandiflorus* or *Phyllocactus latifrons*.

"OLD SEEDS that may germinate in the hothouse may fail in the garden," page 410. During the winter and early spring months the greenhouse is our only available means of growing seeds, as it also is in the case of extremely fine seeds as of begonias, tender plants like palms, etc. but in the case of ordinary garden seeds, I can always get a larger per centage to grow under outdoor than indoor treatment.

A GOOD FUMIGATOR.—I wish some of your practical correspondents would tell us something about a first class fumigator, if there is such a thing in the market.

NARCISSE.—The long and eulogistical editorial and communicated articles about these lovely flowers in the English horticultural press are very gratifying, but we cannot fully emulate their example. To begin with, many of the species and varieties that are hardy there are not hardy here, in several cases different varieties are so much alike that it takes an expert to distinguish them from each other, and too, the fancy kinds are by far too high priced to become popular.

POPULAR PRICES.—A neighbor of mine, a florist who runs a retail plant business, speaking to me the other day about chrysanthemums said: "I am compelled to get all those high-priced chrysanthemums every year as they come out, but they don't pay me the first year, in fact there is no demand for them, for one plant that I can sell at a dollar I can sell a hundred at 10 or 15 cents."

PASSIFLORA CERULEA and its varieties lived out of doors with us last winter, that is under a mulching of litter, this is something unusual, however, and no doubt due to the very mild winter.

PENNISSETUM LONGISTYLUM is a very ornamental Abyssinian grass that we usually treat as annual, but on light land and under a heavy mulch it has lived through the winter very well. This is very unusual, and it is not of any advantage, for young plants are very easily gotten up from seed and they make better specimens than old ones.

CENTRAL PARK LAWN GRASS MIXTURE.—I noticed Gardener Woolson, of Central Park, had been seeding down some fresh patches of lawn, and I asked him what was the famous Central Park formula. "We use red top and blue grass and a little white clover, nothing more," he said. Why, that's what most everybody uses. For finely kept small lawns and croquet and tennis lawns, however, I would omit the clover. The not uncommon practice of sowing some oats, rye grass or other vigorous grass among the finer grasses in order to give shade till the blue or red top grasses get good hold is of no benefit whatever to the lawn grass, but on the contrary, a serious injury.

COREOPSIS LANCEOLATA.—A most noticeable thing about this plant with me this year is the fewness of self-sown seedlings that have come up about the old plants. In former years the ground in spring in the neighborhood of our large plants used to be as thickly studded with self-sown young seedlings as an old garden patch would be with chickweed in April, but this season only an odd one here and there has come up. This is probably due to abortive seed caused by the prevailing wet weather of last summer.

CHRYSANTHEMUM SEGETUM GRANDIFLORUM, a fine flowered form of the European corn marigold was sent out as a novelty a few years ago, and in fact it was high priced, illustrated and loudly boomed in Europe as well as here. Of course we invested, and for our pains have succeeded in adding another pernicious weed to our grounds, where it has naturalized itself with great freedom.

ANNUAL POPPIES have behaved about the same way, only worse, for they occur everywhere from the cultivated beds and grass lawns to the rubbish pile and manure heaps. But as they are so brilliant and beautiful from the 20th of May till the 4th of July I don't mind them much, and if warred against they are easily overcome.

A GRASS-EDGING MACHINE.—Such an implement would be a God-send to every jobbing florist, practical gardener and amateur who wishes to keep his garden in good trim. The edging shears are an excellent implement, but as we have advanced from scythes to mowing machines in mowing lawns, so should we advance from hand shears to an edging machine for trimming the grass edgings. The machine wanted is one that will crop the grass off close up against the sod and do the work clean, thoroughly and speedily. Never mind extra attachments as hoes or rakes, first of all let us have an efficient grass clipper. There may be lots of them in the market, but what I want is one that will do as good work as the shears and keep on doing it, and at machine rate.

HEMEROCALLIS DIMORPHICA.—This species comes into bloom about Decoration Day, and as it is a neat grower, hardy and copious, it is well worth growing for its early blossoms.

THE WEATHER PLANT.—During the last two years Joseph F. Nowack, the Austrian chemist, set us all agog about the wonderful prognosticating powers of this tropical vine (*Abrus precatorius*), and it took the *Kew Bulletin* of last January to open our eyes to the illusion. No matter, we had got to have some weather plants, and the only feasible means of getting them was from seed, so a couple of months ago I got some seed, parboiled it and then sowed it, but so far not one has germinated, still they are perfectly sound and as hard as pens of iron. Any one, however, accustomed to raising leguminous trees from seed will not despair for a couple of years yet.

AMARYLLISES are growing in favor, and as cut flowers in private families they are taking a firm hold. I know of instances in New York where two or three years ago amaryllis blossoms were regarded as coarse-appearing undesirable flowers, but where they now are esteemed as choice desiderata, and the cry is "get more of them." Empress of India, anica and all bright colored, substantial, bold flowers are the ones preferred. But I do not think our people will pay from \$5 to \$20 a bulb for them, as is common in Europe, no matter how choice they may be; popular prices for popular plants is what we want.

HARDY AZALEAS.—We have a belt of 125 plants of *Azalea amena*, a solid hedge 2 to 4 feet wide by 2 to 3 feet high, and just now (between the 10th and 20th of May) it is a solid mass of bright carmine, fuller and brighter than we ever find it in greenhouse grown specimens, and here the plants are perfectly hardy. As an outdoor shrub or indoor pot plant it is magnificent, but for cut flowers I don't like the color. *Azalea obtusa*, another kind of the same type as *amena*, is

also now in bloom and a solid mass of fiery red—the brightest and most effective color among all our hardy azaleas. A superb dwarf shrub, and the color of its blossoms is quite desirable among cut flowers. The mollis azaleas, from pale to intense flame color, and also yellow and yellowish white are likewise in fine bloom, and the Ghent azaleas in many varieties are beginning to unfold their flower buds. *Azalea Indica alba* was so prominently in bud last March that we expected some flowers would have opened long before now, but so far, although the bushes are nearly white with buds, not a blossom has opened.

RHODODENDRON VASEYI.—To ordinary observers who look upon rhododendrons as evergreen shrubs like *R. maximum* this is not a rhododendron at all, but a deciduous azalea. It is true, however, that this species, its near relative, *Rhodora*, and Ghent and other deciduous azaleas are now embraced in the genus rhododendron. It is indigenous to the mountains of North Carolina, and although it grows there abundantly in Jackson and Monroe counties it was only first discovered in 1878. As a garden plant it is one of the loveliest shrubs that have ever been introduced to cultivation, and is perfectly hardy here with us. It comes into bloom about the first of May, lasts in good flower till the 20th, and its blossoms are pretty large and showy and of the most delightful bright, clear pink color. The plants are easily transplanted, bloom when only a foot high, and grow freely, but I am inclined to believe they like moist ground. They thrive better with us than does *calendulacea* and are harder, but not any better than nor have they shown as broad and bushy a habit as has their companion-at-home, *Azalea arborescens*.

Eichhornia (Pontederia) Crassipes Majus.

Eichhornia (Pontederia) crassipes majus is a most interesting aquatic plant; and when better known, one that will be largely cultivated as a house, or summer decorative plant for garden or lawn. It is of the easiest cultivation; a shallow tub or pan—which may be sunk in the ground—with two or three inches of rich compost covered by an inch or two of water being all that is needed to keep up a fine show of flowers for months; for although a floating plant, it grows much more vigorously if the water is shallow and the roots are allowed to grow into the soil.

The leaves are orbicular, with short inflated stems which give it a curious appearance. The flower which is about two inches across is of a lilac purple shade, the upper petal the largest, with a pear-shaped blotch of blue, in the center of which there is a spot of bright yellow; the flowers are borne on spikes nearly a foot in height; and although they are of short duration, such is the plant's freedom in blooming that a good mass will give a fine show of bloom the whole season.

Increased in same manner as houseleek, and spreads on surface of the water; it may also be propagated from seeds, the seedlings when young, appearing like those of the common cuttail (*Typha latifolia*). Its common name is Water Hyacinth. Native of South America.

Malden, Mass.

BENJ. GREY.

Water Lilies From Seed.

Seeds of *Nymphaea Zanzibarensis azurea* planted October 10, 1889; one seed in a 2½-inch pot and placed in a pan with



EICHHORNIA (PONTERIA) CRASSIPES.

water standing two inches over them, germinated in about two weeks at the greenhouses of Mrs. S. P. Gardner, Hinsdale, Ill. After growing about six weeks in the pan they were transferred to 4-inch

pots, the water still kept about two inches over the rim of the pots, where they grew so rapidly that in four weeks more they were repotted into 7-inch pots and placed in half barrels (five pots in

each) with about nine inches of water over them. The water was warmed daily by displacing a portion and adding hot. The plants grew fast and began flowering in March.



Pinching Back Carnations.

When should carnations be pinched the last time so that they bloom by December 1? is the question asked by F. J. Ulbricht, of Anniston, Alabama; a question which will doubtless admit of almost as many different replies as there are carnation growers, and varieties grown, as circumstances of location, heat, drought and moisture and other important conditions of temperature all exert a greater or less influence over this feature of carnation culture.

Varieties also differ greatly in their time of starting afresh after being stopped; to illustrate this point let us take as an example a patch of half an acre containing twenty of the most popular and usually grown varieties of carnations, let them be as near uniform in strength, size and general appearance as possible, and the treatment of all precisely the same, then let the whole batch be evenly stopped on the first day, or first two or three days of August, and it will be found that some sorts, notably Grace Wilder and Portia, will have perfected a new growth and be in flower long before some others have made even a respectable start towards flowering.

The two varieties named if stopped at the time mentioned can generally be depended upon to produce a full crop of bloom in October and again during the holidays, causing perhaps a brief gap in November, while May Queen, Florence, Hinz's White and some others will be from three weeks to a month later in coming into flower. Buttercup, Tidal Wave, Pride of Kennett and other strong growers of the same general character, under exactly the same treatment, will be at least a month and more likely six weeks behind the first two before producing anything like a full crop of flowers; and I have found Garfield still more tardy in flowering, being even as late as middle of January before making any considerable show of flowers, and for this reason this variety got its walking ticket from my domain, being found unprofitable on that account, although in other respects a magnificent variety.

The above experiences are merely given to show the differences between some varieties that I happen to be familiar with. Doubtless other growers have noted still greater variations among sorts, the peculiarities of which they have had opportunities to study. In consideration therefore of the differences existing between varieties, to say nothing of ever varying local conditions, it becomes a somewhat difficult task to even suggest a rule which might be accepted as broad enough and general enough to embrace a territory so diversified and extended as exists between this point and the home of Mr. Ulbricht in Alabama.

In this section, however, and in the vicinity of New York generally I believe it is considered moderately good practice to stop carnations about first of August when the object is October and November flowers, but from first to middle of September when December and the holiday trade are the main features. My practice for the past few years has been to stop all my carnations about the first of

August, in which case I derive full benefit of the successional flowering of both early and late sorts, the bulk of them coming in when chrysanthemums are tapering off towards their last.

H. E. CURTIS.

Paterson, N. J., May 9, 1890.

Desirable Ferns.

Ferns are justly celebrated for their wondrous beauty of foliage and wherever they are seen in good condition they are deservedly admired by all classes and especially so by the practical gardener. They do not receive the attention by gardeners and florists that their merit as decorative plants, their gracefulness of contour and foliage, and their easy culture deserve. The usefulness of the fern as a decorative plant for the embellishment of the greenhouse or for room decoration far exceeds that of a majority of plants used for such purposes. They undoubtedly must be handled a little more carefully than palms and such plants, but with proper care in watering before taking them out, they can be used a number of times without material damage to the plants. A few species herein enumerated can be easily and rapidly grown and will amply repay for the room they occupy, and the trouble of growing them.

Adiantum Farleyense is unquestionably the gem of the adiantum family and is so easily and rapidly grown to large dimensions that I will designate it the giant of the family. I have repeatedly grown this variety from an ordinary plant in a 10-inch pot to a specimen four feet in diameter in one summer. The illustration is from a photograph of a plant that measures at the present time four feet six inches in diameter and is perfectly and equally furnished all around. The requisites necessary to success are a good fibrous loam with plenty of well rotted manure, ample drainage and an abundance of water when growing, and never in any case to let it get dry. I invariably use this soil for all adiantums with the exception of those with rhizomes which require a more open, porous material. I find with the above treatment I can get larger fronds and larger and finer pinnae than when grown in peat or any admixture of it.

Adiantum concinnum and *A. c. latum* are both robust easy growing ferns, *A. c. latum* has a graceful drooping habit and rather larger pinnae than *concinnum* and makes a larger specimen.

Davallia Mooreana is a very robust grower, the fronds often attaining the length of four and five feet. It makes a magnificent specimen and grows best in a pan in partially rotten sphagnum.

Goniophlebium subariculatum as a basket fern cannot be surpassed. The long pinnatifid fronds attain the length of six feet and droop down around the basket in a very charming and graceful manner. Sphagnum with some lumps of fibrous peat is a good substance for this fern to grow in.

Nephrodium immersum cristata makes a handsome compact plant of two feet or more. The pinnae are regularly and beautifully crested along the edge of the fronds which arch gracefully, and make a unique and pretty plant.

Microlepia hirta cristata is also a gem among the crested ferns. It grows to an immense size, has a peculiar light green tint not usual among ferns, but unfortunately is of little use outside of a greenhouse as the great length and weight of its plume fronds are apt to break or bend them when moved about much. From a very small plant of this variety I

grew a specimen in eighteen months that measured seven feet in diameter.

Lastrea villosa is a grand fern where light, airy effects are desired. It produces fronds more sparsely than any of the above varieties and has long scaly stipules surmounted with beautiful tripinnate fronds.

Nephrolepis davallioides furcata, this is perhaps one of the most useful ferns for decorative purposes. It has the merit of retaining its fronds for a long time and is of a hard and robust nature and withal so graceful, bending away from the common center in all directions, as to command admiration wherever seen.

The list of desirable ferns might be extended to large dimensions, but the student of this beautiful class of plants will readily find out the varieties most suitable to his purpose. Where ferns are required in large quantities, and in a small state, they are better grown from spores than from divisions of the plant, except in the case of those that are slow to produce plants from spores; where such is the case and when it is practicable, divisions are preferable.

Fairfield, Conn. JOHN DALLAS.

New York Notes and Comments.

A recent introduction in the line of pansies is the Giant strain grown by Mr. Zirngiebel in Massachusetts. They are of French origin, and in addition to their large size they are remarkable for the unusual brilliancy of their colors. Many of the tints are really unique, bordering more on the velvety red seen in calceolarias than the ordinary pansy tints. Every shade of purple and lavender is seen, frequently shaded in such a way as to appear as if fringed. Many of the colors could only be described by a milliner; they are the odd shades of old pink, old rose, mahogany and heliotrope seen in fashionable fabrics. The yellow flowers are also very distinct; in fact, all the flowers are noticeable for the beauty of coloring. They all come with very long firm stems, making the flowers more valuable for cutting. Mr. Zirngiebel says that they are rather more impatient of extremes in temperature than the common strains, but their superior beauty fully repays the extra trouble involved. Pansies are always popular and salable, and it seems probable that this fine strain will be fully appreciated by the trade.

A recent visit to Short Hills showed that a good many interesting orchids are in bloom at this time, including some fine cypripediums. One of the rarest of this family now in flower is *C. Schomburgkianum*, now being flowered for the first time in this country. It is rather delicate in coloring, the most marked tint being the warm golden green of the pouch. *Cypripedium Dayanum*, still in flower, attracted notice, so did fine blooms of *C. atropurpureum*. *C. Druryi* was another handsome flower, and there were fine varieties of *C. Lawrenceanum*. It is remarkable how many handsome variations of this variety may be found, even in a small batch of plants. Some good forms of *C. bellatulum* were in flower; it seems a pity that nature has given this flower such a short stem, making it literally useless for cutting, as its oddity proves a great attraction. A pot of *C. niveum* attracted attention by the extreme whiteness of its flowers; it was a very good variety, formerly grown by Mr. Bennett, of Flatbush.

Out at Short Hills they have a model house for odontoglosses, masdevallias, and all orchids needing cool temperature during the summer; it is built with every



SPECIMEN ADIANTUM FARLEYENSE

facility for keeping cool. Here some very interesting masdevallias were seen, particularly fine specimens of *M. Harryana*. Almost every plant showed some distinction in color, all the brilliant aniline shades of magenta and solferino red, which can be compared to nothing but tints seen in single dahlias. Bright flame color was displayed by the flowers of *M. ignea*, and the batch of plants gave a very showy effect. But undoubtedly the oddest of the family is *M. Chimera*, which always suggests a miniature combination of the cuttle-fish and tarantula, hairy, straggling and strange in color. It is not what the average flower lover would call beautiful by any means. *Odontoglossum crispum* was beautiful as ever; some very excellent varieties were in flower.

It would appear that cypripediums are a success, as another house is to be filled with them. A number of big tree ferns were having the trunks covered with close masses of *Ladla albidia*, which would have a good effect when in flower. These tree ferns were planted in large tubs of excellent construction. They were made of cedar, not heavy wood, but strengthened by iron braces inside and iron binding up the corners. A very excellent thing, which will be appreciated by those who have to move heavy plants, was the size of the handles, also of iron; they were large enough to be conveniently grasped by both hands at once. These tubs were really nice looking, being

left the natural color of the cedar, and were both light and strong.

Among the ferns were two recent aspidiums from Japan. *A. viridescens* and *A. amabile* both are handsome; the latter, which rather suggests a pteris in shape, has shining rich green leaves, very hard and firm, its habit is graceful, and its hardness would make it appear very promising for trade purposes. *Adiantum monochlamys* is another beautiful fern, having delicate pinnae notched along the edge; though delicate looking it seems as strong as the *adiantum*s generally used, and has a good habit.

Here, as in many places, the chrysanthemums were planted in boxes for convenience in moving, it avoids a great deal of extra work when bringing inside in autumn. The boxes outside were stood up on flower pots, this prevented the possibility of worms or other pests getting in from the ground, and also gives drainage when there is continued wet, such as last season.

In a cactus bed outside was a queer little succulent, a sort of relation of the crassulas, which Mr. Mauda used as a paper weight all winter, under the impression that it was too wrinkled and dried up to be alive. But it is, and appears to be doing well; this may be recommended to amateurs who complain that their plants always die.

The nursery of hardy stuff is becoming an important feature at Short Hills; among showy plants in bloom were

various phloxes, dodocatheon, iberis, various myosotis and many others. The ground is so advantageous naturally that almost every aspect can be obtained, and it also has an adjacent brook, terminating in a pond, which will be stocked with hardy aquatics. A number of frames contained native orchids; two small but lovely varieties in flower were *Cypripedium arietinum* and *C. montanum*. A little later a large quantity of irises will make a fine show.

Some nicely marked mimulus were in a frame; one would think that this would be a salable pot plant for the retail trade. Interest appears to be growing in the direction of showy herbaceous stuff; a wise selection in this line will add to the beauty of suburban gardens, with comparatively small expense.

EMILY LOUISE TAPLIN.

The Germination of Seed.

We know that seeds germinate, but how many of us can tell how long it takes for a particular variety of seed to germinate. Of course all are able to guess somewhere near the time it takes, but with no degree of certainty. Now why not keep a record of these things as they occur and compare them from year to year, or with one another, so as to get more closely to something like a definite time of germination of some of the varieties sown.

A record of this kind would take but

little time to compile and be of considerable value, not only to yourself but to others. You could do it something after this fashion. April 3, 1890, sowed one ounce of "Acme" tomato seed in flats in greenhouse. Used sandy loam. April 10, seed sown the 3rd is coming up. April 22, potted in 2½-inch pots tomato plants from seed sown the 3rd. It would be a good plan to add where the seed was obtained and the number of plants potted or pricked off.

In the case of flower seed sown for cut flowers the record could be continued to show when the first blooms were cut and how long they lasted in bloom, thereby giving a record of considerable value in successive sowings. If the seed was sown in open border, frame or hotbed, or the plants were transplanted or grown in either, it should appear on the record. Then remarks as to growth and general results could follow. Such a record would be of more value than the amount of time spent in keeping, as it would give something definite to refer to.

By comparing the records of several persons or years you would be able to get something more than guess work in these things, and it will give us something that we are all interested to know about, beside tending to break down the barrier of uncertainty in such affairs that they are now covered by.

ALFRED B. COVELAND.

Springfield, Mass.



Seasonable Notes.

Standards require now to have every attention so as to insure even heads when in flower. The actual height of clear stems should be determined before taking out the tops to begin the formation of the heads. As a rule I think standards are too long on their stems; a clear stem of two feet six inches from the top of the pot will give a stature of over 4 feet when in flower, and this is high enough except for special purposes. It will be well to take off a few of the lower mature leaves and as soon as the desired height is obtained. I have just begun to pinch out the tops and to encourage as many breaks as possible. At the end of two weeks select three, four or five, then pinch out all below. The selected breaks should be again stopped as soon as they have made three or more leaves. The shape of the plants should be determined when the second stop is made, and where they are to be severely trained, the hoops and supports should be placed to begin with. Do not hurry to get plants into their flowering pots, a great many plants become starved through doing so.

Specimen bush plants must have all the attention necessary both in training and stopping. Watering and syringing on excessively dry days will become quite a task. In stopping use judgment; the close habited, short jointed varieties should be allowed to grow longer than those with long joints and lax growth. The actual foundation of all specimens should be laid by the first of July.

Plants grown for specimen cut flowers

should have about the same treatment as standards where there is room for housing tall plants. It has been demonstrated that very strong cuttings, quickly rooted in June, of many varieties, give equally as good flowers as do those plants which have been growing since early spring.

For market cut flowers cuttings may be put in as late as the middle of July, and small plants for pots of from 5 to 8-inches in diameter make even better plants, especially if three plants are put together in 8-inch pots. At the final potting, at the end of August, the plants then have healthy foliage to the pot rims; the plants are dwarfier and give more satisfaction. There are some varieties that should never be grown out of doors. Notably Mrs. A. Hardy, E. H. Fidler, Thomas Cartledge and Mrs. W. K. Harris.

JOHN THORPE.

The Weather Plant (*Abrus precatorius*.)

This is a slender climbing tropical vine belonging to the pea family of plants. It has acacia-like, pinnate leaves and little clusters of purple flowers. Its small, scarlet, pea-like seed which are tipped with black are called crab's eyes or Pater-noster peas, and are well known to visitors to the East Indies, the West Indies, the Mediterranean and other warm regions where the plant is a native or naturalized weed, and where the seed are very plentiful and gathered and made into necklaces and other ornaments.

During the past two years this plant has caused considerable agitation in Europe in botanical and meteorological circles, and all on account of Mr. Joseph F. Nowack, an Austrian chemist who made up his mind to make some money by it. He has been growing the plant for about four years.

The leaves and leaflets of this abrus are very sensitive to light, moisture and temperature, and display their sensitiveness in very marked movements; they also, like those of many other leguminous plants, go to sleep at night.

Nowack became very much interested in these movements, and it didn't take him long to come to the conclusion that they were caused by the condition of the weather at some future period. But as the leaves displayed many kinds of movements and we get many kinds of weather, of course he had got to systematize his notions and fix upon particular movements for different kinds of weather. That didn't take him long, however, and the poor little plants were booked to foretell the weather 48 hours ahead, and this they did "with marvelous precision." They prognosticated fair, bright, dull, showery, wet, changeable, calm, breezy, very windy and hot or cold weather, and told where these special kinds of weather should take place, whether in the immediate locality or 5, 10 or 50 miles away. It also forewarned us of snow or hail, fog or mist, electrical disturbance of the atmosphere, thunder storms, cyclones, explosions in mines, and other wonderful things, and indicated the very directions in which all these changes or events would occur.

A glorious discovery, and so much for science. But where's the money coming from? The discovery must be cornered somehow, then boomed from pole to pole. But how? Well, the abrus is a tropical plant and can not be successfully cultivated except in a warm temperature, and glass houses in which to cherish it were none too common, so Mr. Nowack and Ernst Bahlsen, a market gardener of Prag, got up and patented a sort of

glass case or apparatus in which the weather plant could only be "grown and cultivated" successfully, and when so grown only was it of any avail whatever in prophesying the weather. And the price of these cases was \$25, \$60 or \$250 each according to how elaborate a one you wanted. Ah, this looks like business, now let's boom the thing.

Scientists and reporters were attracted to the scene, the newspapers were full of it, sensational stories regarding the wonderful weather plant set the atmosphere aflame between Berlin, Vienna and London, royalty became interested in the phenomenon, fashion smiled, science inclined and prosperity dawned upon the discoverer. For who could gainsay it? There was the plant well known to botanists and no one could look upon it without beholding the movements, so sensitive are the leaves, and as the witness wouldn't care to wait there 48 hours at a time to affirm or deny its infallibility, it became accepted gospel.

And we are told of an observatory in the Styrian Alps that threw away aneroid and barometer and depended upon the weather plant alone for its weather reports. That farmers, agricultural unions and whole townships in Austria had endorsed it. That the committee at the Jubilee exhibition in Vienna had found it to indicate the coming weather precisely 96 times out of 100. And that Nowack himself had made over 34,000 careful experiments with hundreds of plants, and found it almost infallible. And so on.

The late Crown Prince Rudolph of Austria became interested in Nowack's weather plant and brought it to the notice of the Prince of Wales. Then Nowack invaded England, and through the interposition of the Prince of Wales was given facilities at Kew for carrying on experiments there long enough to convince the sceptical English that the weather plant grown in his patented apparatus and according to his directions was exactly as he represented it to be. So he brought over some of his own plants and his own apparatus, and he himself conducted the experiments. These and the observations made were watched and recorded by Dr. Francis Oliver, lecturer on botany at University College, London, and one of the most eminent of modern scientists. Observations were taken about eight times a day for 23 days in October, and the Kew *Bulletin* of last January was wholly devoted to the matter. Alas for poor Nowack, Dr. Oliver found that the movements of the weather plant were not governed in the least degree by the weather of a future period, near or remote, and that it had no prognosticating power of any kind whatever. Further, that Nowack himself was much befuddled in his computations, some days the prognostications would be for one day ahead, on others for two, three or four as the case might be, and then only decided after the days had passed and the actual weather been recorded; and even then no patent medicine almanac in the country could prophesy the weather a year ahead with less exactness.

But now a Yankee florist appears upon the scene and reaps the shickels that Nowack failed to find. The florist nosing around the world for something new struck Nowack's thunder, and at once perceived a splendid opportunity for a sensational novelty. And he quietly secured a quantity of seed and now, making the most of the notoriety already given to it, he booms the plant both here and abroad, but in a popular way.



COCOS AUSTRALIS.

Nowack appealed to one person in a million, but the Yankee to the multitude; for a quarter of a dollar he will furnish seeds of this wonderful weather plant and you can raise the plants yourself and thus secure a living and everlasting thermometer and barometer. In justice, however, let us say that before the appearance of the *Kew Bulletin* last January not one authentic word had been given to the public derogatory of the virtues of this weather plant.

WM. FALCONER.

Cocos Australis.

The illustration is from a photograph of a specimen in the garden of Mr. J. Fonta, proprietor of the Bloomingdale Nursery, New Orleans, La. The specimen shown was raised from seed by Mr. Fonta and is now sixteen years old and 22 feet high.

Marketing Cut Flowers.

The question of how to market cut flowers to the best advantage is one of direct financial interest to every grower and naturally much interest is manifested in a discussion of methods which promise to better existing conditions. From the numerous complaints made it is fair to assume that there is considerable room for improvement, and this improvement we must seek by adopting better methods of distributing the flowers to the places where there is a demand.

The growers in the vicinity of Baltimore have, I believe, partly solved the problem through the establishment of a Florists' Exchange, which has been in operation since December 1, 1889, and which is centrally located in that city. The Ex-

change is an offshoot from the Gardeners' Club of Baltimore, and has been of great value to both growers and retailers.

It is managed as follows: All florists are eligible to membership in the Exchange on subscribing to at least one share of the capital stock, the price of which is \$5, none being allowed to hold more than three shares. Each member has the privilege of selling his flowers through the Exchange, and this privilege is accorded to members only. A commission of 10 per cent is charged upon sales, which defrays the expense of conducting the Exchange, any surplus being paid to stockholders as dividends at the end of the year. All cut flowers are classified as to quality into firsts, seconds and culls. Each consignor's stock is kept separate and each shipper has a separate book in which every shipment is recorded as received and sale entered as made. Prices are regulated by the law of supply and demand and the working of the whole system has given general satisfaction. The Exchange is controlled by seven directors, who compose the board of managers, the same are elected annually. The president, vice-president, secretary and treasurer are elected by the directors from among themselves. A competent manager has the Exchange in hand, who gives accounts of sales to the secretary daily. Weekly returns are made to the growers, as the Exchange is conducted upon a cash system.

Why can not the florists of America establish a National Florists' Exchange with branches in every large city in the Union? In this age of organization nothing is impossible. Each local Exchange to have its home managers to work in

unison with those of the National Exchange. The supply could certainly be more readily and equably distributed to the points where there was at the moment demand for it. I do not see why such a National Exchange could not be organized on the same principle as the one we have in Baltimore, which has duly been incorporated under the laws of the state. How such an exchange would affect the commission man I do not know, but one thing is certain, the growers of cut flowers would know how they stand; they will know if there is or is not any over-production, and they will know whether they are dealt with fairly, as they will manage their own market.

In conclusion, I hope that the suggestion of a National Exchange will be acted upon in the near future, so that we may soon be able to participate in the great benefits to be derived from such an institution. I hope at an early day to stand in the Baltimore Exchange and know not only the morning's receipts of flowers and the ruling rates for the same in Baltimore, but what the receipts have been and what the ruling rates are on the same day in every large city in the land.

EDWIN A. SEIDEWITZ.

Annapolis, Md.

Technical Education for Gardeners.

In your issue of March 15 I read with very great pleasure a paper on the above subject, by Professor B. M. Watson. There are many practical suggestions in it, and some of great importance to the coming youth who aspires to the gardening profession. It is all very well to write elaborate articles in trade papers, but how is this valuable information to reach the masses. The professor in speaking of American school education for gardeners, instances the fact that many on graduating take to other professions, viz.: teachers, doctors or ministers. Now what is the reason of this? Simply because they can have a good time, be thought more of in society circles, get better remuneration and a more certain means of making an independence. Under these circumstances what inducements are there for a youth to bore his brains with a technical education for so poor a prospect? There are several ways to meet this difficulty. The most important is to make the profession worth the study, and to do so nurserymen, seedsmen and florists must give a more remunerative and uniform wage for skilled labor, with certain privileges on business success. Employ those only (so far as practicable) who make a business of gardening, in preference to the all-round man who is willing to work at anything and for any wages, so he can put in a few months till he can suit himself with employment in the woods, or some better paid work than gardening. These are the men that keep down the wages, do a great deal of damage to florists' stock (by their ignorance) and retard gardening as a profession. Hundreds of practical men are obliged to work for only half what they are through their ability worth. And many gardeners I have met, both in the east and the west, agree that gardeners and florists are the poorest paid of any class. Take any garden paper and read the advertisements; you will see many who want practical gardeners and florists with every accomplishment required in the business, with good character and long experience, and when an answer is received you may get an offer of \$25 per month. You are not chosen by the ability you possess or technical knowledge you

have, but by the low wages you will work for. Mere machines, to be used up to make room for more cheap and raw material. How then is it to be expected that gardening will progress under such conditions? I think I hear you say "supply and demand will regulate wages," so it will, if we do not want to elevate our profession let us drop all technical and educational questions and suggestions and let gardening sink to its former depths, among the swamps of the past, and rise only to "water mark."

St. Paul, Minn. G. M. STRATTON.

Nomenclature.

S. A. F. Committee on Nomenclature.

JAMES D. RAYNOLDS, Riverside, Ill., Chairman.

Roses:

ROBERT CRAIG, 49th & Market Sts., Phila., Pa.
EDWIN LONSDALE, Chestnut Hill, Phila., Pa.
ERNEST ASSIUS, West Hoboken, N. J.

Carnations

A. E. WHITTLE, Albany, N. Y.
JOHN THORPE, Pearl River, N. Y.
WM. FALCONER, Glen Cove, N. Y.

Palms, Ferns, and like Decorative Plants:

CHAS. D. BALL, Holmesburgh, Phila., Pa.
JOHN BURTON, Chestnut Hill, Phila., Pa.
W. R. SMITH, Botanic Garden, Washington, D. C.

Chrysanthemums:

JOHN THORPE, Pearl River, N. Y.
WM. FALCONER, Glen Cove, N. Y.
J. M. KELLER, Bay Ridge, N. Y.

Bedding Plants:

G. L. GRANT, 54 La Salle St., Chicago, Ill.
ROBERT CRAIG, 49th & Market Sts., Phila., Pa.
J. M. KELLER, Bay Ridge, N. Y.
A. E. WHITTLE, Albany, N. Y.

Orchids:

DAVID ALLAN, Mt. Auburn, Mass.
BENJ. GREY, Malden, Mass.
WM. FALCONER, Glen Cove, N. Y.
J. FORSTERMAN, Newtown, N. Y.

An Open Letter to Mr. C. B. Whitnall.

SIR:—It seems that you are the third individual who, in base ball parlance, has put himself in the "pitcher's box" with the very plain intention of "striking us out." You will observe we are still "at the bat." As to the real issue in this controversy whether we "renamed" or attempted to "rename" the chrysanthemum, Mrs. Hardy, all we have to say at this time you will find in my reply to Mr. John N. May. You, Mr. Whitnall, have brought little that is new to the "ventilation" of this matter, but lest you should feel that you had been overlooked, I will try and show you that however "much Mr. May knows about our business," you at any rate have weakened rather than strengthened the cause of the professed and professional reformers. You say: "I suppose likely that putting the name Mrs. A. Hardy in small type on the same page makes P. H. & Co. legally safe, but if their safety is in proportion to the size of the type, they are not very safe." If I should call you a thief, Mr. Whitnall, in type one third the size of that with which was printed Mrs. Alpheus Hardy on page 115 of our catalogue, a page that seems to be your special grievance, I am afraid that you would see it so quickly that within a week I would find myself a defendant in a suit for libel. You must indeed hold a very poor opinion of the intelligence of the American people, if you suppose that out of the thousands of retail orders that we filled this spring of this variety that the purchasers were unaware that its name was Mrs. Alpheus Hardy. As a matter of fact, we have heard from only two parties, who seemed to have been misled by our advertisement. Had our prefix "Ostrich Plume" deceived the public we would have been swamped with complaints. And equally improbable is the assertion of yourself and the

Arkansas Traveler (who pioneered the attack, but who seems to have been lost sight of in the general melee) that our use of the expression "Ostrich Plume" had shortened your sales of Mrs. Hardy. On the contrary, the boom we gave it helped not only your sales but those of other florists who had the variety. Listen if you will for the reason. Peter Henderson & Co. spent in advertising the Ostrich Plume chrysanthemum, Mrs. Hardy, this season in magazines and papers alone nearly \$7,000. If the prefix "Ostrich Plume" had not occurred to us, we would not have risked \$70 on the venture. Bear in mind, Mr. Whitnall, that this \$7,000 was independent of and additional to all catalogue advertising. After the advertisement was fairly running the orders were comparatively so light that we thought for some time we had blundered badly in making it a leader. After a while our turn came and now that the season is practically over, we are satisfied with the results. The reason our widespread advertising did not draw at the beginning was that the amateur buyers went first of all to their local florists and it was only when that supply was exhausted that the bulk of the orders were turned in our direction. So you see, Mr. Whitnall, that "wonderful proficient advertisers" sometimes make serious mistakes. We don't complain of this, we simply state the fact. That others benefited at our expense we alone are to blame.

And now Mr. Editor, a word with you, this controversy was not inaugurated by us, and what share we have had in it has been only to repel attacks, as malicious as they were untrue. Your readers we know must have already had a surfeit of this subject, and no matter who the next "ventilator" may be we shall not ask the use of your columns to reply.

ALFRED HENDERSON.

New York, May 21, 1890.

Insecticides.

We extract the following from an article prepared by Prof. F. M. Webster and which appeared in the Indiana Horticultural report for 1889:

The liquids and substances used in destroying insects may be divided into three classes. (1) Such as require to be taken into the system with the food, and which contain more or less arsenic. (2) Such as have an effect external in its character, and do not require to be eaten. (3) Such as are used as repellants.

The first class is composed of Paris green, London purple, and white arsenic. These are deadly poisons, fatal alike to man and animals, as well as insects, and should be used with caution. * * *

The second class of insecticides, or such as kill by contact, and do not require to be eaten, is composed of a considerable number of fluids and substances, the following being those in most general use: Kerosene emulsion, pyrethrum, white hellebore, tobacco, soap-suds, lye, soft soap, road-dust, lime, ashes, coal tar and carbolic acid.

Kerosene Emulsion.—This mixture is one of our most useful insecticides, being perfectly harmless to human life, composed of ingredients found in every household, and withal is very effective. It can be used against nearly all insects which are within its reach and the cost is but a trifle.

There are two ways of preparing the emulsion—one by taking equal parts of kerosene and milk, the other by dissolving one-half pound of whale oil or other

bar soap in one gallon of hot water, and after removing from the vicinity of the fire add one gallon of kerosene. The last formula is the most practical. With the ingredients together in a suitable vessel, detach the spray nozzle from the pump, place the end of the hose in the vessel, and by working the machine draw the mixture out and force it back rapidly until it is of the consistency of thick cream, which may require from five to ten minutes. Having thus made the emulsion, mix it with cold water until it is reduced to the desired strength, say three to five per cent. kerosene. Either of the two kinds of emulsion applied in the form of spray will destroy plant and bark lice, chinch bug, squash bug, and, in fact, nearly all insects which are found in exposed positions. * * *

The third class of insecticides, or repellants, may some of them destroy also, especially when used for fumigation. Some of these are carbon bisulphide, benzine, turpentine, oil of pennyroyal and tobacco.

Carbon Bisulphide.—This is not only a poison, but also an explosive, if brought too near a light or fire and hence must be used with great caution. If poured into holes made in the earth among the roots of plants the fumes will destroy such insects as may be congregated on or about these roots; provided the holes be immediately refilled to prevent the fumes escaping. Confined in tight vessels with seeds infected by insects, like the pea and bean weevils, it will destroy them in the same manner.

Primula Obconica.

After handling *Primula obconica* for several years I was not aware that it was irritating in any way until a lady told me that her hands were stung every time she touched it. But I often have had my hands blistered as if stung with nettles in cutting heliotrope flowers when the hands were hot. The small prickles on the backs of rose leaves blister my hands in the same way. Therefore I think *Primula obconica* has some accomplices in its criminal conduct, but is not so depraved in my eye as the heliotrope and the rose.

JOHN SPALDING.

New London, Conn.

New York.

Mr. Outram, who represents B. S. Williams, of London, England, in this country, sailed for Liverpool by the *Etruria* May 24, after an extensive business trip through the United States and Canada.

At the May meeting of the Florists' Club it was decided to postpone further action connected with the proposed exhibition until it seems advisable to begin definite proceedings. At the same meeting there was an animated discussion on the proposed changes in the plant tariff, which resulted in the passage of a resolution favoring the withdrawal of all tariff on plants and bulbs. While this resolution certainly expresses the opinion of a large number, it can hardly be taken as significant of the entire trade, for it is a subject on which there is much difference of sentiment.

The representatives of the United States Nursery brought back from the Detroit exhibition two handsome gold medals, one presented by the *Detroit Journal*, the other by Wright Kay & Co., well known jewelers of that city. The eastern visitors all express a very warm regard for the City of the Straits and its generous hospitality.

Mr. W. A. Manda will sail for Europe early in the coming summer.

At the present time the city florists find their chief occupation in steamer work, which usually takes the form of baskets or bunches of flowers. This branch of trade was comparatively small a few years ago, but it seems to increase in bulk now each season, and as a rule calls for the best class of flowers. After a week or so of rather dull trade business seems to be looking up a little; there is not an overplus of stuff now in the market, and prices are really good for this time of year.

Plenty of outdoor lily of the valley is in; indoor bulbs are over. For a few days the immense quantity of lilac brought into the city, which was sold about the streets all the way from Central Park to the Battery really affected the florists' trade; all the people who may be called casual flower buyers bought lilacs.

Some of the best pansies to be seen were sent in by Albert Benz; he has some particularly fine dark flowers. Mr. Benz may also be noted as about the only grower who now sends in yellow daisies. These flowers are never high priced, but they are always attractive and find a good many admirers. Many who used to grow them have now given them up, presumably for higher priced flowers.

Just at this season it would seem as if roses were the most popular flowers, as well as the most plentiful. Mr. Brower, whose window usually displays very fine Beauties and La France, gives roses first place, though naturally different people show different taste. Mr. Brower is largely occupied now with his steamer trade.

A recent marriage, where the bridegroom belonged to the firm of Tiffany & Co., is described as an orchid wedding. The bouquets for bride and bridesmaids were made of orchids, and these flowers were also used in the general decorations. The bridesmaids' favors were jeweled orchid flowers, a novelty recently exhibited by Tiffany. One pretty innovation at this wedding was the use of rose buds instead of rice, to throw at the bride when going away. The decoration for this wedding was arranged by Mr. Butler, and possessed some striking features.

Natural prices are not large, but they are good for May. Hybrids are mostly over; they are apt to be very flabby, but some good Baroness have brought from \$15 to \$25 a 100. Very fine Jacqs have been in from Wiegand and Taphu; they vary all the way from \$6 to \$20 a 100. Beauties range from \$10 to \$25 a 100. Bons and Papas \$2; Mermet, Bride, Cnsin and Watteville \$3 to \$5; Hoste \$6; La France \$2 to \$6; Bennett and Albany \$2 to \$5; Carnations \$1.50. Very fine spikes of gladioli are in; these flowers are forced a good deal now, bringing 8 to 15 cents a spike. They are much admired in showy work. Harrisii brings 12 cents and smilax 20 cents. Adiantum hardly ever varies from \$1.50 per 100.

Trade in bedding out seems very good, and local trade around New York is decidedly brisk. Nearly all the retailers in the plant trade say they are kept very busy. In the upper part of New York city a good deal of nice work is to be seen, especially in the way of balcony gardens and window boxes. There is no marked novelty in such arrangements, but the effect is usually good. E. L. T.

Detroit.

The final report of the treasurer of the recent Floral and Musical Festival shows

that the net amount made by and divided among the twenty-three city charities at the festival was the sum of \$18,919.46, an average of \$822.59 for each of the charities.

The amount paid to the florists in premiums (not including specials) was \$1,553, of which J. Breitmeyer & Sons received \$589; Detroit Floral Co. \$254; B. Schroeter \$146; J. F. Sullivan \$122.50; Pitcher & Manda \$100 (and five specials); Holzngle & Noel \$77; A. Ferguson \$68; G. H. Taepke \$56; D. C. Jones \$55; A. Breitmeyer & Sons \$53.50; Charles Warneke \$22; F. W. Lempe \$8; M. Wetterling \$2.

The total attendance during the four days of the festival was over 55,000. The doors had to be closed on three different occasions on account of the crush and at these times thousands were



HENRY BENNETT.

turned away. The management expresses the belief that had the building been adequate the attendance would have reached 75,000, for many were deterred from going by the reports regarding the crowded condition of the building.

Mr. W. Brearley, who so successfully managed the flower show was presented with a handsomely engrossed copy of resolutions and several unique and beautiful testimonials the evening of May 20, by a committee representing about fifty leading citizens and business men who wished to make some public recognition of his services. Mrs. Brearley was also presented with a chaste and unique brooch, being a faithful representation of an orchid in gold and jewels.

Chicago.

H. B. Freeman is the receiver for James King the seedsmen.

Devine's Boiler Works have passed into the hands of Mr. Wells B. Sizer, Mr. Frank Dan Blish who was for twenty-two years attorney for the late Peter Devine, continuing in full charge of the business, and Mr. Arthur Hatfield, for so long foreman remaining as superintendent of construction.

Mrs. J. C. Vaughan and Miss Florence Vaughan have returned from a two-months stay in California.

Messrs. E. G. Hill of Richmond, Ind., and M. A. Hunt of Terre Haute, Ind., were in the city during the past week.

The Florist Club discussed the World's Fair at last meeting. The feeling was general that the club should at once take some action to see that the interests of

the horticultural department did not suffer at the hands of the powers that be, and that ample provision be made for a floral display which should be in keeping with the other details of the great exhibition. A committee, consisting of Messrs. Jas. D. Raynolds, J. C. Vaughan, J. T. Anthony, F. F. Bentley, Geo. Gardner and G. L. Grant, was appointed to represent the club and to take such action as seemed advisable to further the object in view, in addition to securing as far as possible the co-operation of the Florists' Clubs of other cities. A resolution endorsing Mr. James D. Raynolds of Riverside, Ill. for the position of Director of the horticultural department was introduced and unanimously adopted. It was decided that the coming chrysanthemum show should be held November 4 to 7 inclusive. A committee was also appointed to look after railroad arrangements to the Boston convention of the S. A. F. Chicago will probably show up strong at Boston.

The Lincoln Floral Co. is the title on the sign of a new floral store at 141 N. Clark street.

Holland & Barrett are no longer at 263 N. Clark street.

Mr. T. V. Evans, of Riverside, is cutting some very fine Black Hamburg grapes from vines only twelve months old.

At the "adjourned session" of the last Florist Club meeting some very creditable scores were made. Four strikes in succession so excited one player that he was with difficulty restrained from bowling on both alleys at once.

Henry Bennett.

We have pleasure in presenting herewith a portrait of Mr. Henry Bennett, the well known rosarian of Shepperton, England, the raiser of W. F. Bennett, Puritan, Mrs. John Laing, Meteor, Her Majesty, Princess Beatrice and others familiar to American florists.

Mr. Bennett is a typical Englishman and looks to be the very personification of good health. Short in stature, of heavy build, with clear, fresh complexion and bright blue eyes he gives promise of a hale, hearty old age.

He was present at the Chicago convention of the S. A. F., where he was much affected at the hearty welcome given him by the florists of America.

Hartford, Conn.

The Pansy Exhibition of the Hartford County Hort. Society held May 7 attracted large crowds to view the handsome display.

An especially attractive feature was the remarkably handsome exhibits of Denys Zirngiebel, of Needham, Mass., and Albert Benz, of Douglaston, N. Y., who fairly astonished local gardeners with the magnificence of their displays.

The awards were as follows:

Class A—50 cut blooms, 13 entries, 1st, George W. Atwood, 79 points; 2d, John Coombs, 61.

Class B—25 cut blooms, 11 entries, 1st, George W. Atwood, 75 points; 2d, C. W. Francis, 62.

Class C—10 cut blooms, 1st, George W. Atwood, 82 points; 2d, C. H. Pember, 64.

The judges awarded the diploma of the society to Denys Zirngiebel for the finest exhibit in the hall (not entered for competition), and gave "special mention" to Albert Benz for his fine collection of soft colors. They also commended the exhibit of orchids by B. C. Beemer and the cut roses and tulips shown by A. N. Pierson, of Cromwell.

The points in pauses upon which the

blooms were judged are: Substance 40, shape 20, color 20, arrangement 10, size 10; total 100.

The society will give a rose show in June, one for vegetables and plants in September, and one for chrysanthemums in November. A bulb show is in contemplation for next winter.



Seasonable Notes.

Odontoglossums crispum and *Pescatorei* will now have started new growths and will require attention (if not already done). See that they all have proper drainage and ventilation or many new growths will be lost on hot muggy days. If they show signs of improper drainage take them carefully out of pot, remove all sour potting material and put them into clean pots three fourths full of clean broken pots or bricks, but be sure not to give them too large a shift as they do far better in moderate sized pots. As soon as the new growths are showing strong roots at the base increase the watering and when the bulbs are making up their shape copious supplies will be necessary. Never allow the house to become dry and hot; give copious supplies of fresh air, but do not expose them to drafts of cool air which in the summer season means drying up both house and plants. *Odontoglossum grande*, *O. Harryanum* and *O. Insleyi* will take a little stronger heat, light and somewhat drier atmosphere, such as the cattleya or lycaste tribe like.

Laelias anceps, autumnalis, albidia, etc. will now have commenced growth and will require a slight increase of moisture, but do not water too copiously to start with; let the roots be well lengthened and the weather warm before they get heavy waterings, but like the *odontoglossums*, when the bulbs are making up and with plenty of ventilation they can scarcely get too much water night or day until the flower scapes are well developed, then gradually withhold water and after the flower is cut put them away in some convenient place giving enough water only to keep them from over shrivelling. The principal aim when resting is to preserve the last season's roots from decay, which they will surely do if continually watered. Often in collections improperly rested you can not find a living root either in pot, basket or even on blocks. This condition is brought about by keeping the plants when at rest in too warm a house and their being continually watered, say from November to May. I take this to be the primary cause that so many express themselves that the *L. autumnalis* and *albidia* are short lived and hard to keep.

I last year dispensed with the use of sphagnum in potting one half of my *odontoglossums* and other plants, using clean well sifted fern root; the latter I find to be very much the better plan; those will not require anything done to them this season and the plants are stronger, of better quality and much healthier at the roots, while all those on which sphagnum was used as a top dressing last year require a thorough repotting and cleaning. The same is the case with the Mexican orchids such as *Lycaste Skinneri* and such like plants. But for cypripediums I find nothing better than

good clean sphagnum with plenty of drainage, renewing the material whenever it commences to decay.

Utica, N. Y.

WM. MATTHEWS.

Hardy Cypripediums.

Like their tropical congeners among greenhouse plants, so are they the gems of the hardy plants. In the months of May and June they fill the odd nooks of the rockwork, and shady places with their flowers so strange and beautiful.

Cypripedium debile, (syn. *cardiophyllum*). This very rare Japanese species is, I believe, the first time in bloom in America, or in cultivation at all. It sends up a smooth light green stem, 4 to 6 inches in height, which is terminated by two opposite broad and shiny flat leaves. From the center of these leaves on a slender peduncle hangs the flower. The different parts of the flower are well proportioned in size, and measure about an inch in diameter. The dorsal sepal is rather broad, pointed and re-curved at the end as are also the lower sepal and the petals. The three parts of the flower are nearly uniform in size and shape, all having the ends reflexed. The ground color is light green with rich black purple shadings and stripes from the center out. The lip is nearly perfectly round, white shaded pink and marked with deep purple veins. Although not a very showy species it is one of the strangest of all the cypripediums known, the plant without the flowers having the appearance of a germinating lima bean.

Another rather rare and beautiful species is *Cypripedium montanum*, which is much more showy and superior in every way to *C. candidum*. The stems are stouter and higher, carrying from two to five flowers on each, with beautifully twisted petals of dark rich brown, the same color predominating also in the lower and upper sepal, while the lip is white shaded with light pink; the staminate is bright yellow with few red spots which gives the flower a very fine contrast.

Besides these two novelties, I have also before me in flower the rarely seen *C. arietinum*, *C. candidum*, *C. acule*, *C. pubescens*, *C. parviflorum* and the European *C. Calceolus*.

The bright and showy *C. spectabile*, the rare *C. Californicum* and *C. macranthum* of Japan and Siberia are pushing up their growths. These three last named species always come in flower from two to five weeks later than the other species.

A half shady nook planted with hardy cypripediums presents a very pleasing sight, and if planted in well drained ground composed of leaf mould, stiff clay and some peat they will grow and increase in size and beauty every spring. They are all perfectly hardy, and only a light covering of either straw or leaves would benefit them, simply to keep out the sudden changes of thawing and freezing.

W. A. MANDA.

Some Rare Cypripediums at Mr. Kimball's.

Cypripedium Haynaldianum Kimballianum. This is by far the finest variety of that species that has ever come to my notice. The flowers are large, broad and stand out stiff; the dorsal sepal very broad at the top, pure white with deep rosy lines running through. The lower sepal is nearly white shaded with light green. The petals are very broad at the ends, of a rich rosy color, while the inner part is light, yellowish green set with very large and dark spots. It is a very fine acquisition to this numerously repre-

sented genus of plants, and one of which Mr. Kimball is very proud.

The fine *C. Kimballianum* was also in bloom at the same time. The combination of colors is very pleasing, being the nearest approach to *C. Prastans*, *C. lavigatum* and *C. Stonci*.

Another rarity in bloom for the first time in this country was *C. Lawrenceanum* Hyacum. This is the albino among the *Lawrenceanum*, being destitute of any purple or brown which is characteristic to the species. The only color visible in the flower is pure white, which covers nearly the whole area of the dorsal sepal, with light yellowish green veins, while the petals and lip are of a soft greenish yellow color.

Many other rare and choice specimens of cypripediums and other orchids were in bloom at the time, and all the plants looked fine and healthy, which is due to Mr. Geo. Savage's skill and energy.

W. A. MANDA.

Fungous Diseases of Fruit Plants.

The U. S. Department of Agriculture has just issued Bulletin No. 11 of the section of vegetable pathology. This publication, prepared by B. T. Galloway, chief of the section, is a report on the experiments made in 1889 in the treatment of several important plant diseases.

The work was carried on in nine states, embracing nearly every variety of soil and climate and the results as set forth are as a whole highly encouraging, despite the fact that the season was one of the worst ever known for fungous diseases of all kinds. The diseases under treatment were scab, rust and bitter-rot of the apple; powdery mildew, downy mildew, leaf-blight, anthracnose and black rot of the grape; leaf-blight of the pear; leaf-blight, rust and fire-blight of the quince; leaf-blight of the strawberry; rot and blight of the potato, tomato and melon.

Considerable space is devoted to a summary of volunteer reports on vine diseases from which it appears that nearly every one who followed the directions laid down by the department succeeded in saving the greater part of their crop. From all accounts it would seem that the Bordeaux mixture containing 6 pounds of copper and 4 pounds of lime to 22 gallons of water is still the most reliable remedy for grape diseases. The results, however, of the treatment with the ammoniacal carbonate of copper solution are highly encouraging and lead to the belief that in ordinary seasons it will be the cheapest, most desirable and effective remedy. One great advantage it possesses over the Bordeaux mixture is that it does not spot the fruit, which is a matter of importance, especially where the grapes are used for the table. Mr. Galloway suggests that the Bordeaux mixture be used for the first three treatments, after which the ammoniacal solution be substituted for the rest of the season.

Quite Regardless.

"I want a bouquet for a bride to carry. Have it a stunner—I don't care for the cost! There's a two dollar bill for you—now do your prettiest!"

OUR NEW TRADE DIRECTORY is now ready. It gives a complete and accurate list of the florists, nurserymen, and seedsmen of the United States and Canada, designating the special branch of the trade each one is engaged in. Price \$2.

Leaves of Advice From a Limb of the Law.

(For Young Florists.)
XIII.

Please don't flourish that pruning knife quite so close to my head. Why, for a man whose calling is as peaceful and contemplative as a fisherman's, you are terribly excited this morning.

Shameful is it? Well, let's hear something about it. You say old Blowman came around here yesterday and began to abuse you for rendering such a large bill for flowers at the funeral of his wife and accused you of doubling the prices for the very same flowers which you had furnished when his first wife died. Shamed of yourself? Why the old man will hesitate about taking a third partner if you go on raising prices this way.

Put him out of the office did you, and now he threatens to arrest you for assault and battery? Let him come on. The law looks upon a man's honor and dignity with a very jealous eye. While a customer has a legal right to protest against what he deems an overcharge, he must in doing so use respectful language and in particular must he, while on your premises, conduct himself with some show of politeness. Otherwise the law will justify your laying hands upon him and ejecting him from your place of business.

But you must not use any more strength than absolutely necessary. A blow would constitute a battery. You must remove the offender gently and with no outburst of temper. Otherwise in a criminal charge you might be liable to a fine, or in a civil action be adjudged to pay damages. Damages you know are the relief which the law awards upon the violation of a right. They may be merely "nominal," that is say fifty dollars, just enough to carry costs.

Had you for instance struck Blowman while occupied in ejecting him you certainly would have been subjected to a small fine—small because there was gross provocation. The law doesn't expect a man to be a saint and turn one cheek when the other is smitten.

Exemplary damages will be awarded when you can show deliberate and wilful intention to injure. For instance, suppose old Blowman in his anger had come around last night and in some way quenched the fire in your furnace and let your plants freeze, you would be entitled to exemplary damages.

In an action for damages the law will always take into consideration the hurt done to your feelings if any can be proven. But this "mental suffering" must have sufficient basis to enable the court to have a fellow feeling for you. Very few people understand this question of damages. When a man goes into court and asks for damages, he must not base his claim on mere speculation. He must always prove his damages—bear this in mind. The law will not allow him to say: "The breach of that contract caused me a loss of \$1,000." He must prove that such was the case without any "ifs" or "provideds" or "might have beens."

The law will always have sympathy for any man who, upon discovering his wrongful act, at once makes all the reparation possible, strives in every way to undo the wrong, to prove that he had no malice, that it was simply an error of judgment or an oversight.

Of course you will never be allowed to go into court and plead the "baby act," that is admit your wrongful act and claim that you "didn't know that it was loaded" so to speak. It is always better

to stand up like a man and submit to the verdict of the jury with a good grace. You recollect when that Paris green you were using blew over the fence and poisoned Mrs. Finnegan's sow. I told you at once to offer to pay for the litter of young pigs which spite of Mrs. Finnegan's tender nursing died the next day—as well as for the old sow.

To entitle a man to damages he must be able to show that some one is liable. It would be folly for you to sue your landlord for injury done by a thunder bolt. Or suppose your neighbor owns a vicious horse and warns you not to enter the field, you do so at your own risk.

In some contracts it is customary to insert a provision stating what the damages shall be in case of a breach by either party. This is called "liquidated damages." But generally damages must be "measured." The "measure" of damages of course varies in different cases and also whether the case is a suit on a "contract" or an action for a "tort," such as trespassing on a man's property, injuring his property, converting it to your own use, etc., etc. Suppose you discharge an employee without "legal cause" the "measure" of damages would be his wages until his time was up. Should he find employment elsewhere you would be entitled to so much reduction. If a carrier loses your property the "measure" would be its fair value. You would not be allowed to show that you might have made a thousand dollars in case it had arrived safely.

There are cases which require the wisdom of a Solomon to "measure" the damages correctly, such as breach of promise cases, bodily injuries, libel or slander cases, etc. One man sued another for calling him (in German) a "rascal" (Spitzbube), but on the trial of the action it was proved that this word like our expression "little rogue" might really be a term of endearment. Certainly a very ingenious defense.

You ask: "Suppose I sell a man a bill of goods on credit, but afterwards change my mind and refuse to deliver, what would be the 'measure'?" I answer, the difference between the contract price and the price at the time the goods were to be delivered; in other words, the purchaser would be entitled to his profit, with any expenses he could prove. Suppose I had paid you in full and you defaulted? I would be entitled to recover back the purchase money with the margin of profit and all actual costs and expenses. When goods were to be delivered "on or about" a certain day, you would be entitled to a reasonable delay, after which you would be in default.

Yes "contributory negligence" always excuses a person from paying damages. A right to damages for a personal injury does not survive to one's legal representatives. But if in your life time you recover judgment it goes into the inventory of your estate like any other asset.

UNCLE BLACKSTONE.

"Make 'Em Bloom."

A circular advertising a fertilizer with the above convincing title has been sent us. The tale as to the manner in which the manufacturers came into possession of the "secret" formula is told with such artlessness that we print it below:

"Some years ago we had in our employ one of America's best cut flower growers; his success in obtaining bloom from almost any plant under his care was almost a miracle, and especially so in the winter season when all nature is at rest. When ever we became the possessors of any

novelty or new plant our foreman first got them into a good healthy growth, and then they were given to (as the boys called him) "John Bloom" for flowers, and it was not long until we had the pleasure of seeing the novelty put forth its first bloom, which was promptly and closely scrutinized by all of the employees of our establishment from the high-headed ash heaver down to the very docile and modest John Bloom. The gentleman named had for years used a compound of his own mixture which had proven the best of all stimulants for bringing forth flowers from almost all plants on which it was used. Such rose buds, carnations, violets, hyacinths, heliotropes, etc., never came under our observation as he could produce by the use of his secret compound. It was a long time before John would reveal the nature of the compound he used with such wondrous results; but after a good deal of coaxing and a liberal bait of greenbacks, he gave us the recipe for the compound."

Florists' Club Directory.

- Florists' Club of Philadelphia:**
Robert Craig, Pres., 4900 Market St.
H. F. Mitchell, Sec'y, 714 Chestnut St.
- Gardeners' and Florists' Club of Boston:**
A. P. Calder, Pres., Boylston and Tremont Sts.
Jas. J. Cunningham, Sec'y, Roslindale, Mass.
- New York Florists' Club:**
John H. Taylor, Pres., Bayside, L. I.
W. S. Allen, Sec'y, 35 East 23rd St., New York.
- Chicago Florists' Club:**
James D. Reynolds, Pres., Riverside, Ill.
G. L. Grant, Sec'y, 54 La Salle St., Chicago.
- Baltimore Florists' Club:**
Wm. McRoberts, Jr., Pres., Govanstown, Md.
Henry Bauer, Sec'y, 1875 Gay St., Baltimore.
- Society of Indiana Florists:**
M. A. Hunt, Pres., Terre Haute.
Wm. G. Bertermann, Sec'y, Indianapolis.
- Cincinnati Florists' Club:**
C. L. Mitchell, Pres., box 188.
W. C. Nolan, Sec'y, Myrtle Ave.
- Valley of Ottawa Gardeners' and Florists' Club, Ottawa, Ontario:**
James Sorley, Pres.
N. Robertson, Sec'y.
- St. Paul Florists' Club:**
A. H. Bunde, Pres., 406 East Seventh St.
Louis Venzke, Sec'y, 131 East Sixth St.
- Florists' Club of Washington, D. C.:**
Robt. Bowdler, Pres., 404 Central Market.
Eugene Cadmus, Sec'y, 1410 R St.
- Toronto, Ont., Gardeners' and Florists' Club:**
John Chambers, Pres.
Jno. Dunlop, Sec'y.
- Wisconsin Gardeners' and Florists' Club:**
G. W. Kingsore, Pres., Wausau, Wis.
J. M. Crowley, Sec'y, 133 Mason St., Milwaukee.
- Florists' and Gardeners' Club of London, Ont.:**
A. R. Mordock, Pres.
Wm. Gammage, Sec'y.
- Florists' and Gardeners' Club of Montreal, Quebec:**
John Doyle, Pres., Head of Durocher St.
W. Wilshe, Sec'y, 4 Park Ave.
- Gardeners' and Florists' Club of New Bedford, Mass.:**
Wm. Keith, Pres.
Geo. C. Bliss, Sec'y.
- Society of Minnesota Florists:**
E. Nagel, Pres., Minneapolis.
Gust Malmquist, Sec'y, Minneapolis.
- Buffalo Florists' Club:**
Wm. Scott, Pres., 470 Main St.
D. B. Long, Sec'y, 457 Main St.
- Indianapolis Florists' Club:**
Wm. Langstaff, Pres., 26 McKim Ave.
John Hartje, Sec'y, 124 E. 8th St.

Burning the Candle at Both Ends.

I send you a clipping of an adv. that recently appeared in our daily paper. The author of this is a well known wholesale dealer in rooted cuttings of verbenas and celosia, also carnations. He expects the trade to support him during the winter and the way he returns the compliment is by selling bedding plants at retail as follows:

"Assorted flower plants in baskets, 12 plants in each, at 25 cents per basket, and other plants proportionately low, at

the Lake street greenhouses. Call and see for yourself. Verbenas 35 cents per dozen, pansies 35 cents per dozen, and many others at prices equally as low."

In conclusion, allow me to ask the trade, is it for our interest to patronize a man that will sell to the public at retail at a less price than to the trade at wholesale? RETAIL.

Steam Heating.

Will a 4½ H. P. upright steam boiler heat a house 100 feet long by 14 wide and can the boiler be set on top of ground and do the work? If not how deep must it be set? J. C. S.

New York.

Lilium Harrisii After Blooming.

I would like to ask some experienced grower through your columns as to the best way of treating the bulbs of *Lilium Harrisii* after blooming. H. M. H. Ohio.

Carnation Queries.

Is it necessary that carnations be planted over pipes to produce abundance of bloom, or will they bloom without bottom heat? What month and what time of the month is it best to lift them for placing on benches? H. M. H. Ohio.

Shading.

"What is the best shading" is a matter of opinion and circumstance. I regard air-slaked lime mixed with cold water as best on the whole. Cheap, easily applied, does not wash off readily, if it has a day or two of fair weather to set it, (change to carbonate of lime) and is not difficult to remove in the fall. S. F.

A New Violet Discovered.

Under the above caption the Baltimore *Sun* prints the following paragraph recording a most startling discovery which will undoubtedly set the trade agog:

"It is the sweetest flower I ever knew," said Miss Browning, the well known Baltimore florist, displaying a new violet just discovered by Mr. A. P. Gordon Cumming on his place near Sykesville, Md. The foliage leaves of this violet are longer than those of the ordinary wild or cultivated violet. The flower leaves of the new violet are a soft white, striped or mottled with light and dark purple. Unlike the other cultivated violets, the new one is a single violet. All the cultivated violets have hitherto, without exception, been double. Single violets, until this discovery of Mr. Cumming's, have been without perfume, but the Sykesville cultivated single violet has a wealth of rich perfume that can not be surpassed. Those wonderfully sweet plants, daphne, odoro and oleo fragrans, do not give off more delightful odors than this new violet.

A Climber.

It is darkly hinted that one of the novelties to be offered next year by an enterprising advertiser will be "The Fireman Plant, warranted to climb all over the front of a house within three weeks from time of sowing the seed." From the title I am inclined to believe that it will climb the rear wall also and that it won't hesitate to climb down the skylight after it gets on to the roof. G. R. A.

Got into the Wrong Place.

CUSTOMER—"I want a funeral design—a large pillow. Put 'Faith, hope and charity' across the center, 'He is not forgotten' around the edge and 'From a friend' in one corner."

FLORIST—"Peg pardon sir, but you have got into the wrong place. The sign painter's is in the next block."

Bending the Twig.

"My boy, you have been caught in a falsehood. I am deeply grieved at your conduct. Never forget that truth happens in every word and action of an honest boy or man. I hope you will never again permit yourself to either tell or act a lie. Now go back to your work and finish stringing those Duchess of Albany labels on to that lot of La France."

SITUATIONS, WANTS, FOR SALE.

Advertisements under this head will be inserted at the rate of 10 cents a line (seven words) each insertion. Cash must accompany order. Plant ads. not admitted under this head.

SITUATION WANTED—As rose grower and propagator of general florists' stock. Address C. R. care American Florist, Chicago.

SITUATION WANTED—By young man; several years' experience; competent to take charge of small greenhouse or propagating. Good references. Address A. Y. Z., Bridgeton, N. J.

SITUATION WANTED—As gardener by young man who has served an apprenticeship with an English firm, also has experience of 6 years in this country. Testimonials excellent. Single. Wm. Attwood, Andover, Mass.

SITUATION WANTED—As gardener; thoroughly understands his business. Fruits and vegetables a specialty. Can come well recommended from last place. Institution work preferred. Single. Temperate. Address H. care American Florist.

SITUATION WANTED—As florist, to take charge. Thoroughly understands the growing of roses, carnations, violets, and the forcing of all kinds of bulbs; also plant growing thoroughly 20 years' experience; single, good references. Address Florist, 128 La Salle St., Room 3, Chicago.

WANTED TO RENT—Three or four greenhouses in the west. Address 30 care American Florist, Chicago.

WANTED—A thorough experienced seedman; one who has had experience in buying and managing. SEEDSMAN, 41 Day St., N. Y.

WANTED—A good propagator; married; German preferred. Must be an experienced and steady man. Can start at once. Permanent place. Address NANCY & NURSERIES, Louisville, Ky.

WANTED—An industrious and sober florist who understands growing roses for cut flowers, and well up in the florist business. Single man; German preferred. Good wages and steady employment. Address E. C. SCHWEN, Atchison, Kan.

WANTED—A good first-class grower of roses, carnations, hibiscus and other plants for cut flowers, also a general stock of greenhouse and bedding plants. Must have good references; sober and industrious. Good wages paid. Address GEORGE A. HEIN, Toledo, Ohio.

FOR SALE—Wrought welded water-bridge return-boiler, capable of heating 750 feet 4-in. pipe. Also 750 feet 4-inch pipe; all in good order. F. CALVERT & SON, Lake Forest, Ill.

FOR SALE—Florist business; city 30,000 inhabitants. Splendid retail trade in and out of city. Well stocked and equipped. For reasons and particulars, address OHIO, care American Florist.

FOR SALE—Third or half interest in a well established and increasing business to experienced man only; one who can pull off his coat with the present owner. Further particulars, address MEMPHIS FLORAL CO., Memphis, Tenn.

FOR SALE—Florist business in a lively town of 15,000 inhabitants, 5,000 feet of glass, beside the heated sash; warm heat, city water; houses in good repair and well stocked. Must be sold by July 15th. Address Mrs. J. D. care American Florist, 808 South First Street, Stillwater, Minn.

FOR SALE—Florist business, in a live college town in Kansas, two lots, good residence and greenhouse within one block of college grounds; 1,500 feet of glass, good stock, will sell cheap, failing health compels me to change climate. Address Mrs. Geo. Low, 1000 1/2 N. 1st St., Lawrence, Kan.

FOR SALE—A well appointed wholesale floricultural establishment; 32,000 square ft. of ground, covered with glass, in a lively suburb of New York City. All cut flowers are sold on the premises. First-class retailers, and if demand exceeds the supply. Excellent reasons given for selling. Price, \$30,000, one-third cash, balance on bond and mortgage. For particulars, address THOS. W. WEATHERS'S SONS, 45 and 49 Marion Street, New York City.

FOR SALE—A grand opportunity to any one about building greenhouses. The undersigned will sell (with or without land) their entire ground at a great bargain, consisting of about 25 1/4 feet of glass, 750 feet of ventilating apparatus (Hitchings & Co.), 7,000 feet of 4-inch pipe, two No. 1's, one No. 10, one No. 16 and one conical boiler all in first-class order, and made by Hitchings & Co. Houses only been built a short time. For further particulars, apply to J. BROS., P. O. Box 212, South Orange, N. J.

TO LEASE—For a term of years; a first-class greenhouse, with a good cut flower business; over 6,000 feet of glass, heated by steam; hydrant water; Hitchings ventilator; office room and every convenience; located near the center of business in a city of 50,000 people. Well stocked with plants and florists' supplies. Ground for flower garden goes with place. A chance not often found to step into a good paying business. Stock will be sold at a fair valuation. Only first-class gardeners need apply. Address for particulars, C. H. REED, 700 South 20th St., Birmingham, Ala.

FOR SALE.

Astoria Nurseries, Astoria, N. Y. Having purchased the larger part of the stock of Wm. C. Wilson, and wishing to reduce same preparatory to moving to new location, offer bargains to all varieties of plants. Heating apparatus and greenhouse fixtures also for sale.

ROSES.

A very large stock of young Roses of the leading bedding and forcing varieties. Also large stock of same in 5 and 6-inch pots. The best and newest of CHRYSANTHEMUMS, CARNATIONS and general greenhouse stock. Trade list mailed on application.

JACOB SCHULZ,
Louisville, Ky.

THE OAKS ROSE NURSERIES

ROSES.

Meteor, Mme. Cusin, Perles, Niphotos, Mme. de Watteville, Brides, Papa Gontier, Mermets, Magna Charta, and Gen. Jacqueminot.

CARNATIONS.

Hinsdale, May Queen, Orient, Silver Spray, Paxton and Butternut. Strong healthy plants at lowest prices. Write for particulars.

JOHN H. TAYLOR,
BAYSIDE, L. I., N. Y.

ROSES.

GEN. JACQUEMINOT,
MAGNA CHARTA,

Very fine plants, from 2½-inch pots, \$6.00 per hundred.

PYRETHRUM ULIGINOSUM.....\$10.00 per hundred.

ORDERS BOOKED FOR JULY STRUCK CHRYSANTHEMUMS.

JOHN THORPE,

Rockland County.

PEARL RIVER, NEW YORK.

ROSES
AND OUTDOOR BEDDING STOCK.

Good strong 2-inch plants, in leading varieties of TEAS, HYBRID TEAS, and NOISSETES. true to name and good varieties. \$4.00 per 100; \$20.00 1000. Our selection. Per 100

DUCHESS OF ALBANY, 2-in.	\$12.00
MADAM HOSTE, 2-in.	8.00
SOUVENIR DE WOOTTON, 2-in.	6.00
LA FRANCE, 2-in. \$5 per 100; 3-in.	9.00
PAPA GONTIER, 2-in.	4.00
PERLE DES JARDINS, 2-in., 4.00 per 100; 3-in.	8.00
NIPHETOS, 2-in. \$4 per 100; 3-in.	8.00
MERMETS, 2-in. \$4 per 100; 3-in.	8.00
BRIDES, 2-in. \$4 per 100; 3-in.	8.00
BON SILENE, 2-in. \$4 per 100; 3-in.	8.00
HYBRIDS, budded, good varieties, \$3 per doz.	
BALTIMORE BELLE, stroug, 4 in.	8.00
GEN. JACK, 2-in. per 1000, \$40;	5.00
GERANIUMS, good vars, single and double.	3.00
MME. SALLEROI and ROSE GERANIUMS	3.00
FERNS ADIANTUM CUNEATUM and ADIANTUM DECORUM, from 4-in. pots at,	10.00
LATANIA BORBONICA, 5-in. \$4, 4-in. \$3 a doz.	
AMPELOPSIS VEITCHII, one year old plants,	6.00
FUCHSIAS, good varieties.	3.00
COLEUS—25 best varieties	3.00
CYTISUS	4.00
PANSIES, good strain. \$20 per 1000,	2.50
CARNATIONS, Pres. Garfield and Snowdon	3.00
VINCA VARIEGATA and HARRISONII.	3.00
PETUNIAS, double, 12 varieties.	4.00
DAHLIAS, 12 varieties.	4.00
HYDRANGEA THOMAS HOGO and HORTENSIS H. PANICULATA GRANDIFLORA, strong, 2½-in.	4.00
“ “ 4-inch 10.00	
IPOMÆA NOCTIFLORA and LEARII.	4.00
ALTERNANTHERAS, 3 vars. \$25 per 1000,	3.00
PHLOX, 4 varieties.	4.00

Special prices given on large quantities.

GEO. W. MILLER,
1748 N. Halsted St., CHICAGO.

ROSES.

LA FRANCE.....	Per 100 \$ 5.00
GONTIERS.....	5.00
PERLES.....	5.00
NIPHETOS.....	5.00
MERMETS.....	5.00
SOUVENIR DE WOOTTON.....	10.00

These plants are in 2½-inch pots.

JORDAN FLORAL CO.,

706 Olive St., ST. LOUIS, MO.

ROSES FOR FORCING
Fine, well established plants of Catharine Mermet, Niphetos, Bride, Safrano, Papa Gontier, Perle des Jardins, and other choice varieties from 4-inch pots. Price on application.

ELLWANGER & BARRY,

Mount Hope Nurseries,
50th YEAR. Rochester, N. Y.

ROSES.

We are now taking orders for delivery after May 15, on the following vars, 3 and 4-in. pots:
LA FRANCE, PERLE
NIPHETOS, SOUV. DUN AMI,
BRIDE and BENNETT.

From now until then we will continue to fill orders on same varieties from 2½-in. pots, same as heretofore. Correspondence solicited. Address

GERMOND & COSGROVE,
Box 89. SPARKILL, Rockland Co., N. Y.

IMPORTED H. P. ROSES,

Worked low on the Manettia Stock, offer the best results to the florist, blooming freely and giving plenty of cuttings for propagating quickly. Fine plants for sale by the 100 or 1000, at low rates.
Price Lists to applicants. Address

WILLIAM H. SPOONER,
JAMAICA PLAIN, (Boston), MASS.

Rooted Coleus & Alternanthera Cuttings
Colens Verschaffeltii & Golden Bedder, \$1.00 per 100, Alternanthera, in the 4 leading vars., \$1.00 per 100.
JOHN B. FERGUSON, Florist, E. E. Pittsburgh, Pa.

ROSES FOR FLORISTS.

We offer the largest and most complete stock of Roses in this country, straight 2½-inch plants, propagated from thoroughly matured field grown plants, and grown in ordinary soil without manure or any other stimulating material whatever.

OUR ROSES RESIST DISEASE, START QUICKLY, GROW RAPIDLY, AND ALWAYS GIVE BEST RESULTS.

NEW AND SCARCE ROSES OF SPECIAL VALUE: THE QUEEN, best pure white Ever-bloomer for all purposes. DOCTEUR REY-MONT, new hardy crimson, ever-bloomer; COMTESS DE LA BUNEAUX, superb golden amber; SAPHIR, New English Tea; MME. HOSTE, best new forcing rose; JOSEPH METRAL, CAPT. LEFORT, ERNEST METZ, MISS ETHEL BROWNLOW, METEOR, MME. DE WATTEVILLE, MME. GOSIN, BARONESS H. WERNER, SUNSET, VISCOUNTESS OF FOLKESTONE, PAPA GONTIER, and hundreds of others. All the choicest and best varieties, new and old. DUCHESS OF ALBANY, the famous Red La France; GLOIRE DE MARGOTTIN, new deep red perpetual; EARL OF DUFFERIN, SILVER QUEEN, BARONESS ROTHSCCHILD, MME. GABRIEL LUZET, MERVEILLE DE LYON, MME. MASSON, MRS. JOHN LAING, DINSMORE, PAUL NEYRON, LA FRANCE, COQUETTE DES ALPES, and all the best Hardy Roses.

NEW POLYANTHAS, NEW HYBRID TEAS, CLIMBERS and MOSSES. OVER 500 VARIETIES ROSES IN STOCK. Send your lists and have them priced. We want your orders, and will make prices as low as possible.

HYDRANGEA GRANDIFLORA—A leading specialty, large stock strong open ground plants, all sizes at very reasonable prices. All the newest and best hardy, ornamental shrubs. New Hardy Hibiscus, New Althea Blanche, Viburnum Plicatum, Ruists variegated Althea, New Deutzias, New Weigelas, Sweet Scented Honey suckles, New Chinese White and other Wistrias, Clematis, Akebias, and all best hardy Climbing Vines, PEACHY LOW, CHRYSAEANTHEMUMS in 100 finest selected sorts. MOON FLOWERS, extra strong, propagated from blooming plants, finest Summer Flowering Bulbs, Gladiolus, Tuberoses, and Japan Lillies. FLOWERS FOR FLORISTS, including the celebrated Imperial German Fanics in 50 separate shades, and all choicest strains of Flower seeds for florists' use. Satisfaction always guaranteed. WHOLESALE PRICE LISTS FREE ON APPLICATION TO FLORISTS, MARKET GARDENERS and DEALERS ONLY.

ADDRESS THE DINGEE & CONARD CO.,
ROSE GROWERS AND SEEDSMEN, WEST GROVE, PA.

C. M. PRESBY. CHAS. P. ANDERSON.

JOHN HENDERSON CO.,

Flushing, L. I.

ROSES A SPECIALTY. ROSES.

THE CLIMBING PERLE DES JARDINS.

TO OUR PATRONS, AND THE TRADE GENERALLY:—We are convinced that this Rose will prove of permanent value—indoors and out. Its continuity of flowering, vigorous growth, large flowers, beautiful in color and form—a true Tea—must commend it to all.

Strong plants Ready April 1st, \$1.00 each; \$10.00 per dozen.

All the Old, New and Forcing varieties on hand, at lowest prices.
WRITE FOR CATALOGUES AND PRICES.

ROSES. ROSES.

INCLUDING THE SPLENDID NEW VARIETIES

DUCHESS OF ALBANY, MADAME HOSTE, ETC.

ALSO ALL THE BEST STANDARD VARIETIES OF

TEAS, HYBRID TEAS & HYBRID REMONTANTS.

ALSO ALL THE BEST BEDDING VARIETIES.

I AM now prepared to fill orders for the same in Large or Small quantities, TO THE TRADE, from stock that cannot be surpassed by any in the country, at prices that are as reasonable as first-class can be produced for. Also MIGNONETTE SEED, MY OWN SELECTION.

TRADE LIST NOW READY.

JOHN N. MAY, Summit, N. J.

DUCHESS OF ALBANY.

I have the largest stock in the West, in 2, 3 and 4-inch.

State the size and number you want, and write for prices. Also a few of the leading forcing varieties, in excess of my own needs, for early planting.

ADIANTUM CUNEATUM. The popular var. for frond cutting, fine seedling plants, \$5 per 100; \$45 per 1000. For lots of more than 1000, write for special prices.

M. A. HUNT, TERRE HAUTE, IND.

ROSES.

We offer for sale 15,000 first quality Roses, grown from two-eyed cuttings SOUV. DE WOOTTON—one of the most profitable varieties. Will produce more buds than any other. PRICE, 3 in. pots, \$12.00 per 100; 4 in. pots, \$15.00 per 100.

Papa Gontier,
Sunsel,

La France,
Gen. Jacqueminot,

American Beauty,
Bennett.

Perle,

Niphetos,

Bride,

Safrano,

Bon Silene,

Mermet.

PRICE, 3-in. pots, \$8.00 per 100; 4-in. pots, \$12.00 per 100.

PRICE, 3-in. pots, \$7.00 per 100; 4-in. pots, \$10.00 per 100.

J. L. DILLON, BLOOMSBURG, PA.

THE AMERICAN FLORIST

Subscription \$1.00 a year. To Europe, \$1.50.

Advertisements, 10 Cents a Line, Agate;
Inch, \$1.40; Column, \$14.00.
Cash with Order.

No Special Position Guaranteed,
Discounts, 3 months, 5 per cent; 6 months, 10 per
cent; 12 months, 20 per cent.
No reduction made for large space.

The Advertising Department of the AMERICAN
FLORIST is for Florists, Seedsmen, and dealers in
wares pertaining to those lines ONLY. Please to
remember it.

Orders for less than one-half inch space not accepted.

13th Advertisements for June 15 issue must
REACH US by noon, June 9. Address

THE AMERICAN FLORIST CO., Chicago.

EMPLOYEES.

Among the many problems which present themselves to the intelligent commercial grower of plants and cut flowers the labor question is probably the most perplexing. Nearly all the work which must be done requires experience and wise discretion upon the part of the one actually engaged in its execution; there are but few items which can be safely entrusted to a common laborer. Furthermore, it is in many cases quite impossible to determine at once how well the work has been done; the results for good or ill may not appear until a considerable time has elapsed. It is this fact that makes it a question of time to demonstrate the competency or incompetency of an employee, and during this period an unskilled man or one lacking conscientiousness in his work may lose for his employer a very considerable amount. This in conjunction with the fact that a man's efficiency is vastly increased through a thorough familiarity with the soil, conditions, etc. at command, makes it doubly desirable to retain so long as possible one who has conclusively shown a reasonable degree of capability.

That the majority of employers lack a proper discrimination between profitable and unprofitable help admits of little doubt. And as a result there are too many men floating around the country who are unfit for anything but a laborer's work, but who are employed in the greenhouses because they will work for low wages, though they frequently prove fearfully expensive labor to those who are unwise enough to employ them. Low wages do not necessarily mean cheap labor in this business; neither do high wages necessarily mean skilled labor. Frequently men of little or no ability have received pay considerably in excess of their real merit, though such instances are much more rare than the reverse.

We must increase the average of capability among journeymen gardeners by discriminating against incompetent men (for they are dear at any price) and encouraging by the prospect of substantial reward those who display ability and zeal. The employer should understand that his labor must earn for his employer a sum sufficient to pay his wages and leave a profit for the man who supplies the opportunity for him to secure a return for his labor. And the wise employer will discover the men whose labor is of a quality which enables him to make a profit upon it and will stimulate them to the exercise of all their skill by increasing their pay in proportion to the results realized. There is no sentimentality in this course, it is simply business. It is not only better for the men but it is better for the employer.

We care nothing for the education a

man may have unless he can manage to make it of benefit in securing better financial returns. In most cases education makes a better man, with a broader mind and in general a more profitable man, but there are those who have a smattering of technical knowledge which is not backed by good common sense, and the result is a theorist who is apt to be more dangerous than one who is densely ignorant. We must take all these things into consideration. In the last few years there has been a noticeable improvement in this as in many other things, and we trust that it is but the beginning of a thoughtful consideration on the part of employers which will ultimately advance the intellectual average of employees to a better and more profitable standard.

ONE OF the grandest results of the annual conventions of the Society of American Florists is the great advance in the direction of good-fellowship and brotherhood. When business rivals meet on such occasions and each discovers what a thoroughly good fellow the other is, they go back to their homes with a better feeling and prepared to conduct their business in a more generous and manly fashion. And a lasting impression for good is always left upon the members of the craft in the cities where these meetings are held. Being constantly brought together to work in unison for a common object—arranging the details for the reception and entertainment of the visitors, brings them into closer relations, making new friendships and cementing old ones. The good accomplished by the National Society can not be measured solely by the amount of practical and valuable information which it disseminates. The good-fellowship which is engendered by its meetings forms no small part of the benefits which accrue directly to those who attend, and indirectly to the entire trade.

THE PREMIUM LIST of the Cincinnati Chrysanthemum Show has been issued. The premiums are very liberal and should call out some lively competition. The offer of \$50 for "Best 6 cut blooms, variety not before disseminated," will undoubtedly appeal strongly to the originators and introducers of new varieties. From the reading of the offer it would seem that the six blooms may be all of one variety. November 11 to 15 inclusive is the time set for the exhibition.

THE MISSOURI STATE Horticultural Society holds its semi-annual meeting at Poplar Bluff, June 3 to 5. The programme is a lengthy one and the list contains essays on nearly every subject of practical interest to horticulturists. Premiums will be awarded for exhibits of cherries, raspberries, strawberries and cut flowers. Reduced rates have been secured from the railroads for those attending the meeting.

THE RUSH of the spring plant trade is here and the florist who grows bedding plants is engaged in his annual attempt to dispose of three day's work in one. May the weather be favorable during the selling season, the demand sufficient to take all the stock grown and prices maintained at profitable figures.

LE JOURNAL DES ORCHIDEES is the title of a new publication devoted to orchids and under the direction of Lucien Linden, at Brussels, Belgium. It is announced as a practical guide to the culture of orchids; it is in the French language. No colored plates are used and the price is but 10 francs a year.

THE New Jersey Floricultural Society has issued a schedule of premiums for its annual chrysanthemum show, to be held at the Park Rink, Orange, N. J., November 4 to 6. Copies of the schedule and entry blanks may be obtained from P. J. Fay, Secretary, Llewellyn Park, Orange, N. J.

THE Society of Indiana Florists has issued an advance list of premiums for its fourth annual chrysanthemum show to be held at Indianapolis November 11 to 15. Copies may be had on application to Wm. G. Bertermann, Secretary, Indianapolis, Ind.

THE Forest City Florists' and Gardeners' Society, London, Ontario, has issued a premium list for its first annual chrysanthemum exhibition to be held November 4 to 6. Copies may be obtained from Wm. Gammage, secretary, London, Ont.

H. E. F. See recipe for kerosene emulsion in another column. The frequency of application should be governed by existing local conditions.

TWENTY-EIGHT PAGES again. The current volume of the FLORIST will show a considerable increase in size over preceding ones.

OUR NEW trade directory is now ready. Price \$2. Order a copy now.

Catalogues Received.

Henry Bennett, Shepperton, England, roses, C. H. C. Machen & Sons, Warrmond, Holland, Dutch bulbs; Benj. Grey, Malden, Mass., orchids and other plants; same, aquatic plants; Byvoet Bros., Overveen, Holland, Dutch bulbs; Frederick Mau, Weehawken, N. J., orchids; Jas. M. Thorburn & Co., New York, trade list bulbs and seeds; John Laing & Sons, Forest Hill, London, England, plants; Thomas S. Ware, Tottenham, London, England, dahlias; H. Hopkins, Spalding, Lincolnshire, England, bulbs; Jno. Curwen, Jr., Villa Nova, Pa., plants; Pitcher & Manda, Short Hills, N. J., special offer of orchids; same, price list cypripediums; M. F. Ludwig & Son, Allegheny City, Pa., plants.

Coming Exhibitions.

June 24—25, Boston.—Rose and strawberry exhibition Mass. Hort. Society.

August 19—22, Boston.—Annual exhibition Mass. Hort. Society.

October 28—Nov. 1, Atlanta, Ga.—Chrysanthemum show, Piedmont Exposition Co.

November 4—6, Orange, N. J.—Chrysanthemum show, New Jersey Floricultural Society.

November 4—6, London, Ont.—Chrysanthemum show, Forest City Florists' and Gardeners' Society.

November 4—7, Chicago.—Chrysanthemum show, Chicago Florist Club.

November 10—14, Philadelphia.—Chrysanthemum show, Penna. Hort. Society.

November 11—13, Boston.—Chrysanthemum show, Mass. Hort. Society.

November 11—13, Montreal, Canada.—Fall show Montreal Gardeners' and Florists' Club.

November 11—15, Cincinnati.—Chrysanthemum show, Cincinnati Florist Club.

November 11—15, Indianapolis.—Chrysanthemum show, Society of Indiana Florists.

November 12—13, Worcester, Mass.—Chrysanthemum show, Worcester County Hort. Society.

ATLANTA, GA.—At the next meeting of the Atlanta Hort. Society a paper on chrysanthemums will be read by Mr. Jas. Burpitt.

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Wholesale Markets.

Cut Flowers.

BOSTON, May 27.

Decoration Day prices.

Roses, Bon Silene.....	\$5.00
" Fancys.....	6.00 @ 10.00
" Jacqs.....	10.00 @ 15.00
Carnations.....	3.00 @ 4.00
Valley (German).....	3.00 @ 4.00
Stocks.....	3.00 @ 4.00
Souras.....	3.00
Deutle.....	2.00
Rhododendrons.....	12.00
Mignonette.....	1.00
Marquetties.....	.50 @ 1.00
Pansies.....	.25
Snulax.....	25.00

PHILADELPHIA, May 27

Roses, Hybrids.....	\$20.00
" Beauties.....	8.00 @ 15.00
" Mermets, Brides.....	10.00
" Jacqs.....	10.00
" La France.....	6.00
" Bennetts.....	3.00 @ 5.00
" Perles, Nibbetos.....	3.00
" Wootons.....	4.00
Carnations, long.....	2.50
Carnations, short.....	1.00
Valley.....	4.00
Asilbes.....	2.00 @ 3.00
Bouvardia.....	1.50
Heliotrope.....	1.00
Snulax.....	20.00
Adiantums.....	1.00

NEW YORK, May 27

Roses, Bon Silene.....	\$2.00
" Gontiers.....	2.00 @ 3.00
" Perles, Nibbetos, Sunsets.....	3.00
" Mermets, Brides.....	4.00 @ 6.00
" Wattevilles, Cusins.....	1.00 @ 5.00
" Bennetts.....	3.00
" La France.....	4.00 @ 6.00
" Albany, Hostes.....	6.00
" Beauties.....	10.00 @ 25.00
" Jacqs.....	6.00 @ 20.00
" Hybrids.....	15.00 @ 25.00
Snulax.....	20.00
Carnations, long.....	1.50 @ 2.50
Mignonette.....	1.00
Valley.....	3.00 @ 4.00
Adiantums.....	1.50
Gladious.....	8.00 @ 15.00
Harrisii.....	12.00

CHICAGO, May 29.

Decoration Day prices.

Roses, Perles, Nibbetos.....	\$5.00 @ \$7.00
" Gontiers.....	5.00 @ 6.00
" Bon Silenes.....	2.00 @ 3.00
" Mermets.....	2.00 @ 3.00
" La France.....	6.00 @ 8.00
" Brides.....	10.00
" Am. Beauties.....	15.00 @ 20.00
" Jacqs.....	12.50
" Bennetts, Dukes.....	6.00 @ 7.00
Carnations, short.....	1.25 @ 1.50
Carnations, long.....	1.50 @ 3.00
Callas.....	12.50 @ 15.00
Harrisii.....	12.50 @ 15.00
Snulax.....	20.00 @ 25.00
Valley, tulips.....	5.00 @ 6.00
" Violets.....	5.00 @ 7.50
Mignonette.....	1.00 @ 2.00
Heliotrope.....	1.00
Marquetties.....	.50 @ .75
Pansies.....	.50
Gladious.....	10.00 @ 12.50
Perlies.....	8.00 @ 12.50
Adiantums.....	1.25 @ 1.50
Narcissus.....	2.00 @ 4.00

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Return Telegrams are sent immediately when it is impossible to fill your order.

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Extra designs made to order. Write for price list.
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The Seed Trade.

SEED TRADE ASSOCIATION.

H. W. JOHNSON, Philadelphia, president; ALBERT M. McCULLOUGH, Cincinnati, secretary and treasurer. The eighth annual meeting at Saratoga Springs, N. Y., beginning June 10, 1890.

American Seed Trade Association.

SECV'S OFFICE, CINCINNATI, May 24, '90.

Regarding the coming meeting at Saratoga, June 10, I have arranged with the Adelphi Hotel for accommodations and headquarters, special terms to members and their friends at \$3 per day. We have also arranged with the Trunk Line Association and the Central Traffic Association for special rates of one and one third fares for round trip, on the certificate plan, for delegates and friends attending the meeting, covering the territory east of Chicago, Mississippi River and St. Louis, except Michigan and New England.

It is very desirable that we have a full attendance at this meeting as there are quite a number of subjects that will be brought up of vital interest not alone to the members, but to the entire seed trade of the United States. One of the main objects of the association is to develop business relations in which all can stand together in the effort to improve and perfect a standard of business integrity which shall include purity of stocks, honesty of representation, carefulness of obligations and promptness in execution. Now it must not be expected that each and every member can get quick and direct returns from the meeting, but in general results they can not but be benefited. The association has already accomplished considerable for the benefit of the business; but there is much more to be done, and by united action we should have considerable weight that we can not expect to have as individuals. It is earnestly requested that if it is not possible for you to be present you should at least be represented by proxy. ALBERT McCULLOUGH, Sec'y.

ISAAC F. TILLINGHAST, under date of May 20, 1890, sends from La Plume, Pa., a printed circular that he "is in such shape that it is impossible for him to meet his obligations promptly." And June 1 is hardly here yet. J. A. Everitt & Co., of Indianapolis, Ind., ("O. K. seeds") also announce, May 22, that they have stopped payment.

THE Cleveland Seed Company, S. M. Pease general manager; Conrad N. Jordan, president; E. F. C. Young, vice-president; J. D. Bodle, Jr., secretary; R. S. Fowler, treasurer, announce May 12 that they succeed to the business of the A. B. Cleveland Company, limited, and are located at 111 Morris street, Jersey City, N. J.

J. W. MILLER & Co., of Freeport, Ill., nurserymen and seedsmen, announce that they have suspended payment. J. C. Walker, a florist of Nashville, Tenn., is reported to have disappeared.

JOHN LEWIS CHILDS has broken ground for a new fire proof seed house 60x40 feet, four stories, brick and iron, all floors iron and tiling and all strictly fire proof, to cost \$20,000.

C. L. ALLEN has engaged with F. E. McAllister, taking charge of certain departments of his business.

OUR NEW DIRECTORY of the florists, nurserymen and seedsmen of the United States and Canada is now ready. Price \$2.

San Francisco.

The second annual exhibition of the California State Floral Society which opened May 20, was a decided advance on the previous one. Notable among the displays was that of Mr. J. H. Sievers consisting of orchids, tropical plants and cut blooms of his new rose the "Rainbow." Mr. Timothy Hopkins made a beautiful and very extensive exhibit of Sweet Peas, showing thousands of blooms and in great variety.

Premiums were awarded as follows: 24 cut blooms H. P. roses, E. Gill; 12 cut blooms H. P. roses, E. Gill; 24 cut blooms tea roses, California Nursery Co.; 6 cut blooms tea roses, Mrs. R. Townsend; 12 cut blooms climbing roses, Fruitvale Nursery Co.; 6 best climbing roses, Mrs. T. L. Walker; general collection of cut roses, 1st Peter Theisen; 2nd H. T. Greenough; 3d California Nursery Co.; blooms of bulbous plants, Mrs. T. L. Walker; California wild flowers, 1st G. W. Dunn; 2nd Mrs. Vestey; general collection of cut flowers, Mrs. E. T. Crane; pelargoniums, best 12, Mrs. D. R. Harris; rhododendron blooms, California Nursery Co.; camellia blooms, E. Gill; clematis bloom, California Nursery Co.; pansy blooms, 1st Mrs. R. D. Laze; 2nd R. H. McGill; roses in pots, F. A. Miller; flowering plants, Charles Abraham; ferns, Mrs. L. O. Hodgkins; best specimen plant, Mrs. Coupland; most meritorious general exhibit, John H. Sievers.

Special prize—\$25 offered by Emory E. Smith for best collection of tea roses, E. Gill.

The Boston Convention.

Following is a list of Boston hotels at which arrangements have been made for delegates to the coming convention of the Society of American Florists. It is arranged according to distance from the convention hall, beginning with the nearest:

NORTHWARD FROM HORTICULTURAL HALL.			
Name and location.	Distance from Hall.	Rate per day.	
Tremont House, Headquarters.			
Tremont St.	opposite	\$3.00-5.00	
Parker House,			
School St.	1 sqr.	1.00-3.00	
St. Nicholas Hotel,			
Province St.	1/2 "	.75-1.00	†
Boston Tavern (gent's only),			
Washington St.	1 "	1.00-2.00	†
Sherman House,			
Court Square	1 1/2 "	.75-2.00	†
Young's Hotel,			
Washington St. & Court Sq.	2 "	1.00-3.00	†
Crawford House,			
scollay Square	3 "	1.00-2.00	†
Quincy House,			
Brattle St.	3 "	2.50-3.00	†
American House,			
Hanover St.	4 "	2.50	†
Revere House,			
Bowdoin Square	1/4 mile †	.75-1.50	

SOUTHWARD FROM HORT. HALL.			
Adams House,			
Washington St.	4 sqrs.*	3.00	
Hotel Reynolds,			
Washington St.	4 "	3.00	
Vieth's Hotel,			
Tremont St.	5 "	1.00-2.00	†
United States Hotel,	1/2 mile †	1.00	
Beach St.		2.50-3.00	†
Hotel Brunswick,			
Boylston St.	1 1/2 "	3.50-5.00	†
Hotel Vendome,			
Commonwealth Ave.	1 1/2 "	3.50-5.00	†
* American plan. † European plan.			

Rooms may be engaged now on application to any member of the committee on hotel accommodation. The committee is as follows: Wm. J. Stewart, 67 Bromfield street, Boston; M. H. Norton, Berkeley street, Boston; P. Welch, 165 Tremont street, Boston; J. Frank Curtis, Newtonville, Mass.; J. J. Cunningham, Readville, Mass.

News Notes.

ORANGE, N. J.—Mr. A. Decker has opened a florist store on Main street.

DRESDEN, GERMANY.—Karl Wilhelm Mietzsch, the well known azalea and rose grower, died April 30.

OAKLAND, CAL.—There was an excellent display at the recent floral festival and the exhibition was well patronized.

SPRINGFIELD, ILL.—Mayor Charles E. Hay, well known to the florist trade of the country, will spend the summer in Europe.

CINCINNATI.—C. A. Peters has sold his business to Ernst Mack, who will continue the same. Mr. Peters is now in Brunswick, Ga.

RICHMOND HILL, N. Y.—Axel Lindstrom is now building a new house 20x100, which will make him a total of 7,500 square feet of glass.

SANTA BARBARA, CAL.—At the last meeting of the Horticultural Society it was proposed to hold a chrysanthemum show in the autumn.

ATLANTA, GA.—The display of roses at the session of the Atlanta Horticultural Society May 17 was unusually good. A rose show is projected for June.

PALATKA, FLA.—In the garden of Mrs. M. E. Boyd, of this city, are over 1,000 bushes of roses in great variety and in spring the garden is literally a sea of bloom.

QUINCY, ILL.—A heavy hail storm smashed 5,000 feet of glass on the greenhouses of G. Gross the evening of May 12. Plants were badly cut up. John A. Heller also lost heavily.

SHORT HILLS, N. J.—Messrs. Pitcher & Manda have enlarged their greenhouses to make room for the magnificent collection of orchids recently purchased from DeWitt Smith, of Lee, Mass.

KANSAS CITY, Mo.—The Woman's Christian Association is making arrangements for a floral festival to be patterned as far as possible after the recent floral and musical festival in Detroit.

SAN DIEGO, CAL.—The net receipts of the annual flower festival amounted to about \$700, which go to the Woman's Home and Day Nursery. Among the exhibits were many elaborate floral designs.

SANTA BARBARA, CAL.—There was a very large and varied display of roses at the "Flower Fair" held here in early May. There were good displays of other flowers, but the exhibits of roses were the main feature.

SAVANNAH, GA.—The annual floral exhibition which closed May 9 was the most successful ever given by the Floral and Art Association. The display was very creditable and the exhibition was a financial success.

LOS ANGELES, CAL.—The annual flower festival was as usual a great event. There was a large display and it was also a financial success, \$2,100 being the net profits which will be turned over to the charities interested.

WILMINGTON, DEL.—According to an article which recently appeared in a local paper Jacob L. Brown—still in the business here—was the pioneer florist of this city, starting in with one small greenhouse 35 years ago.

OSKALOOSA, IA.—The Kemble Floral Co. had some glass broken by hail May 12. The same was covered by insurance in the Florists' Hail Association, and the loss was promptly paid by the association.

WATERBURY, CONN.—Henry Precht, the florist, has purchased land on Chapel street in Simonsville and will remove his greenhouses there from the old Aaron Benedict site on South Main street, where they have been located for over a quarter of a century.

DEERFIELD, N. J.—Geo. M. Cole, one of the oldest and largest nurserymen in the state made an assignment May 7. He is a large grower of peach trees and the failure of the peach crop for the last two seasons has left him without demand for young trees.

WORCESTER, MASS.—The Higginson Botanical Club offers three prizes for collections of plants to be gathered during the coming season. For the best herbarium collected in Worcester county \$5 will be given, for the second best \$3, and for the third best \$2.

SAN FRANCISCO.—At the last meeting of the State Floral Society an interesting paper on pelargoniums was read by J. H. Sievers, the florist. The subject for next meeting will be "The fragrance of flowers and its commercial value," upon which a paper will be read by Emory B. Smith.

NEW YORK.—William B. Scott, florist at 407 Fifth avenue, made an assignment May 15 to George W. Stephens. Isaac Buchanan started the business many years ago, and when he retired he turned the business over to his employee, W. Scott, in July last, furnishing the latter \$1,000 special capital.

GRAND RAPIDS.—Several business changes have occurred here in the last six months. Fred Foster has closed up his florist business. Anke Tuinstra has also gone out of business, the greenhouse having been torn down and removed. John Doran started into business last fall in the northwest part of the city with one house 20x100.

LINCOLN, NEB.—A high west wind brought a heavy fall of hail May 9, the which has fallen here for four or five years. L. C. Chapin lost 300 or 400 feet of glass, covered by insurance in the Hail Association, the policy having been taken but a week before the storm. Other florists here suffered lighter losses. Plants were sadly damaged.

CHARLESTON, S. C.—The exhibits at the "Floral Fair" held the first week in May were equal to last year in quality, but there was some decrease in quantity owing to the weather which has been very unfavorable this spring. It was certainly a remarkably fine exhibit considering the drawbacks wrought by the variable season. The attendance was fair.

RIVERSIDE, CAL.—The grand carnival and rose show of the Woman's Relief Corps called out immense quantities of flowers and the attendance was very large. Among the floral designs was a huge one representing the old mission building at Santa Barbara. Its exterior was made of Saffron, Cloth of Gold and LaMarque roses, the roof of red roses in variety. The tower was surmounted by a cross of Marguerites as was also the gable at the front.

KANSAS CITY, KAS.—Prof. E. N. Plank, the botanist, recently returned from a collecting trip. For six years he has traveled over the state of Kansas devot-

ing his whole time to collecting specimens of the flora of this state. The specimens he has secured are now mounted and represent 2,000 species of plants. They have been carefully classified and the professor is compiling the results of his labors for a book which will be entitled "The Botany of Kansas."

HAVERHILL, MASS.—The first exhibit of the Haverhill Horticultural Club was held May 12 to 14, and was a very gratifying success. There was a very fine display of tulips and other spring bulbs as well as general collections of plants. Florists Geo. H. Hill, C. H. Kaulbach and C. H. McLaughlin, of Haverhill, and Otto Bauhaich, of Atkinson, N. H., each made excellent displays for which gratuities were granted by the judges. There were a large number of displays by amateurs.

UTICA, N. Y.—A meeting of local florists was held May 14 for the purpose of organizing a Florists' Club. The meeting was largely attended and the following officers were chosen: President, Jonathan Ancock; vice-president, C. F. Seitzer; treasurer, C. F. Baker; secretary, W. I. Crowe. John Matti, Wm. Mathews and G. W. Chatfield were appointed a committee to report by-laws for adoption. T. J. Griffiths and E. G. Brown were elected honorary members. The club starts with a membership of seventeen.

PHILADELPHIA.—At the last meeting of the Florists' Club there was a vigorous discussion upon the proposed import duty on plants. A resolution was finally adopted expressing the sense of the majority as against the proposed duty. There is however a considerable minority who favor the duty. It is proposed to spend \$25,000 on the proposed building for club headquarters. A portion of this sum has already been subscribed and it is expected that the remainder will be arranged for before the next meeting of the club.

NEW YORK.—The Market Florists' Association of New York City held its second meeting at the Mohawk Hotel, Spring and Washington streets, May 22, and perfected its organization. It was in-

tended to ask the park commissioners for the use of the plaza on the north side of Union Square as a site for a flower market, in place of the old site at Canal street and the North River, which is too small to accommodate the florists; but it was decided at this meeting, on motion of John Morris, the Jefferson Market florist, who is chairman of the site committee, to defer making the formal request until next fall. In the meantime Mr. Morris is endeavoring to excite public interest in the matter, and has already succeeded in securing the influence of several prominent ladies. The establishment of such a market in a central part of the city would add a picturesque feature to New York life, and as the business of the market is all over by 7 o'clock in the morning it would not interfere with traffic in the least.

Poor Pay.

A Brooklyn, N. Y., florist recently secured a warrant for the arrest of the proprietor of the Plaza Hotel. He stated that he planted a number of geraniums for him and that when he asked for his pay he got a thrashing instead.

At the Flower Show.

HE—"Isn't that bunch of lilies handsome?"

SHE—"Yes, but I should much rather have this bride's bouquet."

HE—"Will you carry one like it to my wedding?"

SHE—"Go and see papa first."

ARE THERE any "lima bean pole" geraniums among your stock for spring sales? If so, it will pay you better to throw them on the rubbish heap than to injure the trade by selling them to ignorant buyers. Sell only plants which you know will give satisfaction to the buyer.

SEND ME \$1.00

And receive, postpaid, 3 of my beautiful new DWARF GOLDEN

ACHYRANTHUS McNALLII,

and one NEW SCARLET GERANIUM that will surprise you.

Address **E. McNALLY,**
ANCHORAGE, Jefferson Co., KY.

We can now furnish in any quantity desired Debit and Credit Tickets of which we give below samples reduced one-half in size.

DEBIT. <i>Jan'y 10 1889</i>		
<i>John Smith</i>		
100	<i>Verbena</i>	3 —
50	<i>Geranium</i>	4 —
		7 —

CREDIT. <i>Jan'y 10 1889</i>		
<i>Richard Roe</i>		
500	<i>4-inch pots</i>	5 —
175	<i>2 1/2 "</i>	5 —
		10 —

The debits are printed in black and the credits in red, so they can be readily distinguished. They are put up in blocks of 100; 50 of each, placed back to back; thus but one block will have to be carried. By means of these tickets an entry on a sale or receipt of goods can be made anywhere—in the house or in the field—and afterwards filed. Tickets for each transaction in your business will make data from which a book-keeper can readily work. With this simple and easy means of keeping a record of your business can you afford to neglect so important a matter?

Price of Tickets, postpaid, 100, 20c.; 200, 35c.; 300, 50c.; 500, 75c.; 1000, \$1.40.

AMERICAN FLORIST CO.,

54 La Salle Street, CHICAGO.

Color of Letters on Floral Designs.

ED. AM. FLORIST.—I would like to call the attention of the retail florists to the color of the letters used in making up set pieces for funeral work. The prevailing tint now used is a bluish purple, and when photographed it can hardly be seen at all. If the custom of lettering both in natural flowers, and in manufactured letters must prevail, let the color tend to one that will show nicely in a photograph.

J. E. BEERE,
Denver, Colo. Photographer,

[The purple is mainly used because it is considered the most appropriate color for lettering funeral designs. Other colors are frequently used in other than funeral work. With the ready made letters now in use it would be a simple matter to substitute lettering of another color at the time the design is to be photographed. Red is a good color, we believe, for this purpose.—Ed.]

SPRING BULBS, Etc.

Per 100 Per 1000		
GLADIOLUS, Gandavensis Seedlings.		
large bulbs, from choicest col.		
shades of scarlet & crimson.....	1.25	\$ 9.00
" " pink and var.....	2.00	15.00
" " white and light.....	2.50	22.50
" " yellow.....	2.25	20.00
" " best mixed, all colors.....	1.25	11.00
" " Colvill alba "The Bride".....	1.25	11.00
HYACINTHUS Candicans, large bulbs.....	1.75	15.00
TI BEROIS'S, Pearl or Excelior		
Pearl, Good flowering sizes.....	1.25	9.00
Per doz		
Cannes in finest mixture.....	5.00	1.00
Caladina Excellent and good size.....	6.00	1.50
Anemones in the mixture.....	1.50	.25
Ranunculus in fine mixture.....	1.00	.15
Amos tuberosa, beautiful climber.....	2.50	.40
Madeira vine, large tubers, per bbl \$6.00.....	1.50	.20
Arundo Donax Variegata.....	15.00	2.00
Coccolia Drumondii.....	4.00	.75
" Pedunculata.....	5.00	.75
Dahlia's, large ground roots, in fine sets.....	14.00	2.00
large ground roots, in separate colors.....	10.00	1.50
Oxalis Deppeii, for edging.....	1.00	.25
Nymphaea odorata, large roots.....	5.00	.75
Cacti, for bedding, in 10 or more good sorts, nice specimens.....	10.00	1.50

For other **SPRING BULBS, FLOWER SEEDS** (fresh crop only), **FLORIST'S SUPPLIES, METAL WREATHS, PORCELAIN FLOWERS**, etc. see Catalogue.

PALM SEEDS!

FRESH. IN SPLENDID CONDITION.

Per 1000 Per 100		
Areca Sapida.....	80.75	8.00
Areca Lutescens.....	\$10.00	1.25
Chamærops Urens.....	per lb. \$1.50	
" " Humilis, per lb. \$1.50.....	1.50	
Coccothrinax.....	2.00	
" Weddelliana.....	2.00	
Corypha Australis.....	8.00	1.00
Dracaena Australis, clean seed.....	4.00	.50
" Indivisa.....	1.00	.25
" Veitchii.....	2.00	.20
Kentia Belmoreana.....	2.00	
" Forsteriana.....	2.00	
Musa Ensete.....	15.00	2.00
Phoenix Canariensis.....	4.00	.50
" " Dactylifera, per lb. \$2.00.....	2.00	
Thrinax Argentina.....	4.00	.50

CYCAS REVOLUTA STUMPS, dormant, warranted sound. In all sizes, from 50 cents and upwards, at about 50 cents per stump, for sizes up to 10 in.; larger specimens quoted on application.

FALL BULBS AND NURSERY STOCK.

Orders solicited now for Dutch, French and other Forcing Bulbs and Plants at lowest prices. Catalogues free to applicants. ADDRESS

J. A. De VEER,

18 Burling Slip, NEW YORK.
(REMOVED FROM 183 WATER ST.)

DAFFODILS. DAFFODILS.

(CONFERENCE SORTS.)

Illustrated Drawings (book shape) from nature, by Gertrude Hartland, of over 50 finest sorts. The book which is copyrighted, is put up specially as a **TRADE REFERENCE**. It is finished in the most perfect style, lined paper, gilt edge, etc., and the drawings are considered the most faithful representations published in Europe. Copies mailed, post-paid to the United States on receipt of postal order for One Shilling and Sixpence. This will include a separate wholesale list of forced sorts, for a guaranteed July and August delivery, direct from Liverpool.

WM. BAYLOR HARTLAND, Seedsman,
24 Patrick St., CORK, IRELAND.
Daffodil grounds (10 acres) ARD CAIRN, CORK.



FORCING BULBS.

Orders should be booked now for Freesias, Bermuda Easter Lilies, Von Zions, Roman Hyacinths, Paper White Narcissus, Etc.

Send a list of your wants at once for estimate.

We can take care of you this year better than ever.

Let us hear from you NOW.

JOHN GARDINER & CO.
PHILADELPHIA.

FREESIA BULBS, READY.

Best American grown bulbs will be ready for all customers June 5.

Per 100, \$1.60; per 1000, \$13.50.

Per 100.	
ROSE DUCHESSE D'ALBANY.....	\$15; 250 for \$30.
—MME. HOSTE.....	10; 250 for \$30.
—CLOTHILDE SOUFFERT.....	12
—WOOTTON.....	6.
—AMERICAN BEAUTY.....	10.
—GLOIRE DE MARGOTTIN.....	12.
—PERLES, BRIDES, MERMETS, NIPHETOS, etc., good, @ \$5.	

ALL
FORCING BULBS
IN SEASON.

J. C. VAUGHAN, Box 688, CHICAGO.

GREENHOUSES: WESTERN SPRINGS, ILL.

TREMENDOUS REDUCTION

IN PRICES OF

ROMAN HYACINTHS, PAPER WHITE NARCISSUS, FREESIAS, LILIUM CANDIDUM, AND OTHER FRENCH BULBS

For early Fall Importation.

Write for WHOLESALE IMPORT PRICES, also of German Lily of the Valley Pips, Liliun Harrisii, Tuberoses, AZALEA INDICA, PALMS, DRACAENAS, Etc., Etc.

WHOLESALE CATALOGUE OF DUTCH BULBS, ROSES, ETC., will be issued early in May.

Address

C. H. JOOSTEN,

Importer of Bulbs and Plants,

3 COENTIES SLIP, NEW YORK CITY.

OUR NEW

DIRECTORY

giving a complete and accurate list of the Florists, Nurserymen and Seedsmen of the United States and Canada is

NOW READY.

Price, \$2.00.

AMERICAN FLORIST CO.,

54 La Salle Street, CHICAGO.

G. V. VAN ZANTEN & CO.,

HILLEGOM, HOLLAND,

Headquarters for the Best

Hyacinths, Tulips, Narcissus, Etc.

Catalogue free. Apply to

S. ASCHER,

16 & 18 Exchange Place, New York City.

FOR SALE.

THE CUTS

USED IN ILLUSTRATING THIS PAPER.

Write for prices on any which you have seen in previous issues and would like.

AMERICAN FLORIST CO.

CHICAGO.


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OFTEN WAIT TOO LONG in sending their orders for Holland Bulbs. Please to send your orders as soon as possible.

References as to Quality of our Bulbs, Etc., to several UNITED STATES FLORISTS and SEEDSMEN.

If no copy of our Catalogue received, please order one.

SEGERS BROTHERS,
WHOLESALE BULB GROWERS,
LISSE, near Haarlem, HOLLAND.

TRADE  MARK.

FORCING BULBS of TRUE STOCKS
in CHOICE QUALITY is of any importance to you, write to us.

POLMAN MOOY,
BULB GROWER,
HAARLEM, HOLLAND.

ALL
THE BEST TULIPS,
THE BEST HYACINTHS,
THE BEST DAFFODILS.

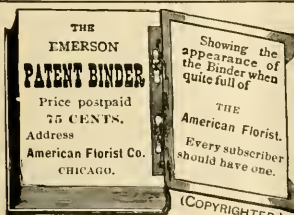
If you do not import direct we will refer you to the Seedsmen who import from us.

HOLLAND* BULBS.

BEFORE PLACING YOUR ORDER
BE SURE TO WRITE TO

C. H. C. MACHEN & SONS,
Wholesale Bulb Growers,
WARMOND, HOLLAND, EUROPE.

Catalogue, which is now ready, sent on application.



C. H. C. MACHEN & SONS.,

—*— WHOLESALE GROWERS OF —*—

DUTCH BULBS.

Send for Price List.

WARMOND, near Haarlem, HOLLAND.

WHITE ROMAN HYACINTHS
FLOWER BULBS GROWER'S SYNDICATE, at OLLIOULES, VAR, FRANCE.

TELEGRAPHIC ADDRESS: ROMANUS OLLIOULES.

CROP 1890.

White Roman Hyacinths, Light Pink, Dark Pink, White Italian, White of the Mountain, Single Blue, Yellow, Lilium Candidum, Narcissus Totus Albus (Paper White), Double Roman, Jonquils, Allium Neapolitanum, Ornithogalum Arabicum, Etc., Etc.

Price List for Wholesale Dealers, free on application.

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HULSEBOSCH BROS.,
—GROWERS OF—
DUTCH BULBS, FLOWER ROOTS & PLANTS
OVERVEEN, near Haarlem, HOLLAND.
Offer to the Trade as usual all kinds of the best
Hyacinths, Tulips, Crocus, Lilies
Narcissus, Roses, Azaleas,
Rhododendrons, &c., &c.
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A. HULSEBOSCH,
P. O. Box 3118. NEW YORK CITY.
Mention American Florist.

R. VAN DER SCHOOT & SON,
HILLEGOM, HOLLAND.

LARGEST GROWERS OF

HYACINTHS, TULIPS, NARCISSUS, SPIRÆA, LILIES
OF THE VALLEY, ETC.

Headquarters for Forcing Bulbs. Wholesale Importers should write us for prices.

Our new Bulb Catalogue is now ready. Will be mailed free on application.

GRAPE 850,000 VINES
100 VARIETIES

Headquarters of the MOYER, the Earliest, Best, Reliable Red Grape. Also SMALL FRUITS, TREES, etc. 8 sample vines mailed for 15 cents. Illust. descriptive Price List free. **LEWIS ROESCH, FREDONIA, N. Y.**

Nurserymen's Convention.

We give below a list of the essays which will be read before the annual meeting of the American Association of Nurserymen at the Park Avenue Hotel, New York City, June 4 to 7.

The question of new fruits, by Hon. H. E. Van Deman; Some remarks on grafting, by Prof. L. H. Bailey; Are hardy perennials desirable for our catalogues? by Jacob W. Manning; Can stock be dug and shipped too early in the fall? by G. E. Meissner; The cause of low prices for nursery stock, by Hon. S. M. Emery; Do we live and learn? by Thomas Mehan; Chestnut culture, by Samuel C. Moon; Does the future of our business look as promising as the past? by H. S. Wiley; Elevation of our business, by C. L. Watrous; Hardy fruits for the west and north, by Prof. J. L. Budd; Nurserymen, agents, tree peddlers and bugs, Geo. J. Kellogg; Advertising—how can it best be done? by G. J. Carpenter; Peach orchards of the west and south, by N. H. Albright; The relation of nurserymen to the forestry problem, by B. E. Fernow; A talk on fruit growing as a business, by S. D. Willard; The future of nut culture, by A. S. Fuller; Transplanting evergreens, by Fred W. Kelsey; Thoughts on soil fertility, applicable to the nursery, by Prof. L. P. Roberts; Home grown vs. foreign stocks, by E. W. Graves; New small fruits, by F. K. Palmer; Russian varieties of fruits, by Leo Wetz; Leaf blight on the pear, as affecting nursery stock, and its remedy, by Prof. B. T. Galloway; Has he ruined eastern farmers by his success in peach culture? by J. H. Hake; The grape, its character as affected by climate and situation, by G. W. Campbell; Suggestions for packing nursery stock, by a member to be named later.

The hotel, exhibition room and session hall will be all under one roof on the same plan as that which gave so much satisfaction at the convention held last year in Chicago.

NEW SWEET SCENTED CHRYSANTHEMUM
"Nymphaea." A decided novelty. Form and fragrance of Pond Lily. Fine for floral use. A so the cream of the cream of older varieties. Send stamp for plate of "Nymphaea," and Catalogue.
H. W. HALE, Ridgewood, N. J.

FOREIGN GRAPE VINES.

Large list of Varieties for Planting
Hot or Cold Graperies.

FISHER BROS. & CO.,
MONTVALE, MASS.

LOTUS,
NELUMBUM SPECIOSUM,
AND
WATER LILIES,
ALL COLORS.
AQUATICS FOR THE AQUARIUM, Etc.
Send for Catalogue.

BENJ. GREY, Malden, Mass.

DRACENA INDIVISA, 15, 18, 21 and 24 inches high, \$1.50, \$2.00, \$2.50 and \$3.00 per dozen. Per 100
Stem Rooted Cuttings Colons, mostly Verschaffeltii..... \$1.00
CLEMATIS VIRGINIANA..... 6.00

W. W. GREENE, SON & SAYLES,
WATERTOWN, N. Y.

MAGNOLIA BLOOMS
packed in cotton and shipped to any State. Per doz.
\$2.00. Write for rates per 100. Money with order.
MEMPHIS FLORAL CO., Memphis, Tenn.

PLANTS FOR THE SEASON.

During the Bedding season many large plants are often required for baskets and piazzas. Special cheap list as follows. All will be found fine plants for immediate sale. **ALL IN FIRST-CLASS CONDITION.**

Palms.

- 12 Handsome palms, 1½ to 3 feet, in 5 and 6-inch pots fit for 7-inch now, 6 distinct sorts, \$5.00.
12 Dracena Indivisa, 6-inch pots, 2½ feet and over high, \$5.00.
12 Crotons, highly colored, 1½ feet, \$3.00.
12 Gardenias (Cape jasmine), 12 to 15 large buds just opening on each, \$3.00.

Small Plants.

The following will be valuable to all who pot them on and fill up houses during Summer after bedding plants are sold. Will make fine plants in a few months.

Ferns.

- Adiantum Cuneatum (Maidenhair), 2-inch pots..... \$4.00
Ferns mixed, 20 best sorts, 2-inch pots..... 4.00
fine, in 4-inch pots..... 8.00

Palms.

- Areca lutescens 2-inch pots, 1 ft..... 10.00
Cocos Weddelliana, store pots..... 8.00
Latania Borbonica, 2-inch pots..... 5.00
Phoenix Tenuis, 2-inch pots..... 6.00

Other Foliage Plants.

- Dracenas, 20 best sorts, 2-in. pots..... 10.00
Crotons, 30 bedding sorts, 2-in. pots..... 10.00
Alocasias, Marantas and others, mixed var 10.00

Bedding Plants.

Ceraniums, best sorts, from 4 inch pots, \$5 per 100 also Fuchsias and heliotropes. Well rooted root cuttings of double and single white and pink Bourdianas in mixture, \$10 per 1000.

N. STUDER,

Anacostia P. O., WASHINGTON, D. C.

June is here, but it is not yet too late to plant out in the field the strong plants of the grand new pink Carnation—

"Fred Creighton"

that I am now offering. Young plants of this variety planted out in the field about the 10th of June 1889 were exhibited at the convention at Buffalo in August, with from 8 to 20 long stemmed flowers and buds on each plant.

The returns from the sale of the flowers of this carnation inside of one month alone last winter was \$1.80 per square foot of bench room.

This is not the coming Pink Carnation, but the one that has come, and come to stay.

Strong, healthy young pot plants only will be offered this year, \$25 per 100. Twenty-five plants at hundred rate.

GEORGE GREIGHTON,
NEW HAMBURGH, N. Y.

CARNATIONS.

Hope to have a fine lot of Field-grown plants in the Fall.

Will make contracts NOW.

W. R. SHELMIER, Carnation Grower,
AVONDALE, PA.

VERBENAS.

PERFECTLY HEALTHY STOCK.

- From 2½-inch pots..... \$2.50 Per 100
CARNATION HINZE'S WHITE, from 2½-inch pots..... 3.00
Cash with order..... 25.00
Address **J. G. BURROW,**
FISHKILL, N. Y.

Florist Bulbs and CUT FLOWERS.

THE WISCONSIN FLOWER EXCHANGE,
133 Mason Street, MILWAUKEE, Wis.

NARCISSUS.

An immense collection and an enormous stock of all the leading varieties, especially of those adapted for forcing. Many acres are now in flower, and 1 expect 1 shall have at least

A MILLION

of fine forcing roots to offer this season, and shall be pleased to give prices for any variety for **EARLY FALL** delivery. A preliminary list has been sent to my customers, and my General Trade Catalogue will be ready shortly.

CLEMATIS.

My stock for Fall delivery will be much heavier than previous seasons. The varieties consist of all the best kinds and may be relied upon. Also many other varieties of Hardy and Half Hardy Climbers.

PYRETHRUMS.

Many thousands of these are grown and form one of the most important families of my Florist Flower Department. Also Carnations, Phloxes, Delphiniums, Pansies, Fuchsias, Hollyhocks, etc.

HERBACEOUS PLANTS.

The increasing demand for this group, both at home and abroad, has necessitated my adding several acres of fresh stock, in addition to my usual stock which is immense. Every good hardy plant is grown in large quantities, and I shall be pleased to quote prices for anything required.

DAHLIAS.

An extraordinarily complete collection, every variety of every section worth cultivating will be found described in my Retail Catalogue, published in April. Trade list of Pot Kools published in the Autumn.

HARDY BULBS.

Many acres grown, forming the most important branch of my Establishment, Anemones, Lilies, Chionodoxa, Gladioli, Begonias, Montbretias, and hundreds of other families too numerous to mention here.

CHRYSANTHEMUMS.

Every variety up to date, including English and Continental, full descriptions of which will be found in my numerous Catalogues, which may be had on application.

THOMAS S. WARE,

HALE FARM NURSERIES,

Tottenham, London, England.

VERBENAS AND PANSIES.

- | | |
|---|------------------|
| Verbenas named..... | Per 100 |
| Verbenas, mixed Mammoth seedlings..... | \$ 2.50 |
| Pansies, large transplanted plants, per 1000..... | 2.00 |
| Pansies, Fall sowing from seed, strong..... | 1.00 |
| per 100 \$8.00..... | 8.00 |
| Abutilon in variety..... | \$1.00 per doz. |
| Abutilon New Erect..... | 3.00 |
| Alyssum and Ageratum..... | 3.00 |
| Antennaria coronaria..... | 4.00 |
| Begonia Rex..... | \$5.00 and |
| Coleus Golden Buzzer, Verschaffeltii..... | 3.00 |
| Coleus in great variety..... | \$3.00 per 100 |
| Cannas, French Hybrids, named varieties..... | 10.00 |
| Dahlias, dry roots..... | 4.00 |
| Dahlias English..... | 4.00 |
| Dahlias Marguerite..... | 4.00 |
| Feverfew Little Gem..... | 4.00 |
| Fuchsia Phenomenal and E. G. Hill..... | 6.00 |
| " Storm King and others..... | 3.00 |
| Geraniums, great variety..... | 3.00 |
| part Rooting, Mme. Serot, M. of Snow..... | 3.00 |
| Primula Obconica..... | 8.00 |
| Richardia Alba Maculata..... | \$5.00 to 10.00 |
| Tuberose bulbs..... | 1.50 |
| Violets..... | 3.00 |
| Vioxa Major Var. very strong, Finch..... | 16.00 |
| Primula Obconica seed..... | 1000 seeds, 75c. |

Would exchange for some H. P. Roses, young stock.

I. N. KRAMER & SON,
Marion, Iowa.

PLANTS.

Jersey Yellow Nansemond Sweet Potato,
\$1.50 per 1000 in May; \$1.00 in June.

MELON SEEDS A SPECIALTY.

FREEMAN HURFF,

SIYEDSBORO, N. J.

Order Now

A Copy of our New

TRADE DIRECTORY

PRICE, \$2.00.

AMERICAN FLORIST CO., 54 La Salle St., Chicago.

2-inch Pipes for Hot Water.

Regarding small or large pipes for heating with hot water I have to say that in arranging to heat the last house I put up I struck a lot of cast steam-boat tubes two inches in diameter which I obtained at the price of old iron; after the ragged ends were cut the tubes were as good as new; I got steam fittings for manifolds and cut sleeve connections from 2½-inch pipes and put all together with rust joints. It is the neatest and best working set I have. I am so well pleased with it that if I was beginning new again I would have all 2-inch pipes for hot water. Cooling down is all a myth; heating up is the question, and that is accomplished in much less time with the small than with large pipes.

My boilers are self-feeders and there is only a slight decline in the temperature of the water in the pipes after leaving them six to eight hours. Marine boilers are made and repaired in this place and I got cast steam boiler tubes nearly as good as new at low rates for all my houses; we cut and fitted them up ourselves. That decided the question of steam or hot water for me in favor of the latter, and as yet I do not regret it.

JOHN SPALDING.

New London, Conn.

PLANTS FROM POTS.

Verbena, in bud and bloom, Mammoth.	\$9.00 per 100.	4 00
" in bud and bloom, ten. col.	\$5 per 100	3 00
ROSES—Jacks, Perles, Mermel, Papa Gontier, Niphetos, La France, Cook, Sunset, Saffron, R. D. Ami, Bon Silence, Brides, and Baltimore Belle, strong plants, 2½-in. pots.	\$40 per 100	5 00
Everblooming Roses, fine collection \$35 per 100	4 10	
4 and 5-inch pots, in bud and bloom.	\$8 per 100	15 00
Hardy Roses, fine collection, including Jacks, 4 and 5-inch pots, in bud and bloom.	\$15 and 25	
Ampelepis Veltchli, strong plants.	8 00	
Achyranthus Emersonii and four other sorts.	4 00	
Gazania Splendens and Variegata.	4 00	
GERANIUMS—Double Grant, Summit of Perfection, and best double and single sorts, also Ivy Leaved.	4 00	
" Silver Mt. of Snow, and cut-leaved including Rose.	5 00	
Pelargoniums, best collection, strong plants.	5 00	
Vines, Variegata & Splendens, 1 yr. strong.	10 10	
Tuberous, dry bulbs.	2 00	
Begonias, Box types, 3½-inch pots.	12 00	
Coleus, best collection, 2 and 3-in. pots.	\$3.00	
Fuchsias, best collection.	4 00	
Salvia Splendens.	4 00	
Colien Scandens, strong plants.	8 00	
Heliotrope, best collection.	4 00	
Pansies.	3 00	

Latest Trade List free.

WOOD BROTHERS,

(Successors to I. C. WOOD & BRO.) FISHKILL, N. Y.

CELERY, CABBAGE.

AND CAULIFLOWER PLANTS.

Fine plants, from Reliable Seed. Packed light to go any distance with safety.

CELERY.....	per 100, \$1.50
CABBAGE.....	" 1.25
CAULIFLOWER.....	" 1.75

Trade List and Prices on larger quantities sent free on application.

We make this a Specialty, and can supply your wants in this line satisfactorily.

JOHN BLOOMFIELD,

L. B. 215, OVAL CITY, Stark Co., OHIO
Telegraph and Express Office, Middle Branch, O.

NEW SEEDLING CHRYSANTHEMUM

"ORANGE BEAUTY."

This novelty has been in bloom with us last year from September until June and is now in full bloom. We can supply fine plants in 2½-inch pots at \$1.10 per 10 plants, or \$10 per 100. Also a large stock of Grand Duke Jasmine, 2½-inch pots, \$5.00, and 3½-inch pots, \$7.00 per 100. Jasmine multiflorum 2½-in. pots, \$5.50 per 100. Bourdavia Bockli and Cleveland, 2½-inch pots, \$3.00, and 3½-inch pots, \$4.00 per 100. Allamanda Hendersonii, from 2½-in. pots, at \$7.00 per 100; from 3½-inch pots, strong plants, \$5.00 per dozen, or \$20.00 per 100.

Terms, cash with order or satisfactory reference.

FRANCIS MORAT'S SONS & CO.,
LOUISVILLE, KY.Special Offer
FOR TWO WEEKS ONLY.

We will hold this stock until June 10th before planting out.

Gloxinia Bulbs.

Finest mixed strain. One of the best summer flowers for cutting. Few know that the flowers last for 10 days after being cut when placed in water. 10 cents each, \$7 per 100.

DAHLIAS—Dry field roots; named sorts; white and yellow, etc. \$10.00 per 100.

CANNAS—Named sorts, \$6.00 per 100. Fine mixed or dark or light foliage, \$4.00 per 100.

V. H. HALLOCK & SON,
QUEENS, N. Y.

LILIUM HARRISII.

TRUE TO CHARACTER.

FREE FROM DISEASE.

A recent personal inspection of the fields at Bermuda impressed us with the fact that the left hand cut fairly represents a very large proportion of as Liliium Harrisii.

Those we offer are

THE TRUE, EARLY, MANY-FLOW-
ERED VARIETY,

(represented by right hand cut.)

THOROUGHLY MATURED, FREE
FROM DISEASE, AND FIT
FOR FORCING.

Grown under contract, and recently inspected by a member of our firm.

Send us a list of your requirements and we will quote low prices. Also on



IMPORTATION ORDERS OF DUTCH AND FRENCH FORCING BULBS.

— FLORESTA'S SEEDS AND SUPPLIES A SPECIALTY. —

JOSEPH BRECK & SONS,

51, 52 and 53 North Market St., BOSTON, MASS.

COSMOS HYBRIDS.

PLANTS FOR EARLY BLOOMING.

Seed sown in Jan. and Feb. checked several times to produce early flowers. Many are now in bloom, showing a fine mixture of pure white, deep red, rose, flesh color, and shades of each.

Introduced from Mexico a few years ago. Slightly resembles the Single Dahlia, but much more graceful and smaller. Very valuable for cut flowers on account of lasting quality. Blooms when other flowers are scarce and lasts a week after cutting.

Have already shipped them to 15 different States and Territories without a Complaint.

Remember my plants are for Early Blooming, thus overcoming the difficulty of flowering them before frost, when seed are sown later or in open ground.

SEND SIX CENTS FOR SAMPLES IF YOU HAVE ANY DOUBTS.

Finest mixed, strong plants \$5.00 per hundred. If too distant to order by Express, will "shake out" and mail at same rates.

Have enlarged my place and make a specialty of the COSMOS HYBRIDS.

ISAAC C. ROGERS, MOORESTOWN, Burlington Co., N. J.

ORCHIDS.

Cypripedium Insigne.

Fine plants at \$25.00 per 100; \$4.00 per dozen. 50 at 100, six at dozen rate.

EUCHARIS AMAZONICA, good, at \$5.00 per 100.

GEORGE SALTFOOT, Rhinebeck, N. Y.

CLEMATIS JACKMANNI.

Fine young plants for bedding. Also 2 year plants.

Prices on application.

JABEZ JOHNSON, 919 N. Main St., Dayton, O.

Three new American Seedling Chrysanthemums, raised by Mr. Wm. Shieldrick.

GOLDEN BEAUTY, a splendid grower, of dwarf, stocky habit making the pot plants, Chinese type and of the richest golden yellow, most probably the finest yellow in existence. 25 cents each; \$2.00 per dozen.

PURPUREA, a colossal grower, making fine show plants; flowers of medium size, very numerous, of perfect form and beautiful purple; a scarce color, therefore very welcome. 25 cents each.

RED BIRD, a distinct novel variety, of vigorous growth, dwarf habit, single pom-pom style, very pretty, flowers abundant, beautiful cherry red with yellow center. There is nothing like it. 50 cents each; \$4.00 per dozen.

A few thousand of the choice older kinds still on hand. \$2.00 per 100; \$25.00 per 1000.

Address J. C. GIBSON, Woodbury, N. J.

R. S. BROWN & SON,

Orchids, Palms, Ferns.

Acyranthus, 2 varieties.	Per 100
Abutilons	\$3 00
Ageratum, 2 best varieties	\$4, \$6 and 8 00
Alternanthera aurea nana	\$3 and 4 00
" Tricolor	3 00
" Versicolor	3 00
" Paronychioides	3 00
" Spectabilis Variegata	3 00
foliage pink	4 00
Amaryllis Johnsoni, large flowering, bulbs 50 cts. each.	
Begonias, 40 flowering var. \$4, \$6, \$8, 25 00	
Begonia Rex, assorted	8 00
Crotons, assorted	8 00
Calla, spotted leaf Richardai Alba	
Muculata	\$5, \$6, 8 00
Cactus, Lobster	8 00
Carnations, assorted	4 00
Cannas, assorted	5 00
" New French	16 00
" " seedlings	10 00
Cuphea (Fire Cracker plant)	3 00
Coleus, 20 best varieties	3 00
Chrysanthemums, of sorts	3 00
Dusty Miller	4 00
Dracaena Indivisa	8 00
Dahlias, of sorts	8 00
Echeveria Glauca	\$3, \$5, 6 00
" Kosa	\$6, 8 00
" Extensia Globosa	\$12, 25 00
Eulalia Gracillima	12 00
Japonica Zebrina	16 00
Forget-me-nots, of sorts	4 00
Euphorbia Splendens	\$4, \$6, 8 00
Feverfew Little Gem	4 00
Fuchsia, double and single	\$5, \$4, 6 00
" Storm King	4 00
" Phenominal	6 00
" Mrs. E. G. Hill	6 00
Glechoma Hederacea, var. groundivy 8 00	
Gladiolus, of sorts, Red	1 50
" Light	\$3, 4 00
" Named	6 00
Geraniums, assorted	\$3, \$4, 6 00
" Scented, of sorts	\$4, 6 00
" Lady Washington, sorts, \$6, 8 00	
Moon Flowers	4 00
Hibiscus, assorted	\$4, \$6, 8 00
Ilydrangea, assorted	\$8, 16 00
Impatiens Sultana	6 00
Lemon Verbenas	4 00
Lantanas, of sorts	\$4, \$6, 8 00
Montbretia Crocosmiflora	5 00
Oxalis, assorted	\$4, 6 00
Perennial Phlox, of sorts	\$6, 8 00
Nasturtium, Darkness, double red	8 00
Salvias, assorted	4 00
Roses, of sorts, Teas	\$4 to 15 00
" H. P.	\$6 to 15 00
Pilea Arborea	\$5, 4 00
Vincas, trailing sorts	\$4, 6 00
Verbenas, of sorts	3 00
Wax Plants	8 00
Ferns, named kinds, 4-in. pots	25 00
" " 2½ & 3-in. pots. 8 00	
Hardy Plants, of sorts	\$8 to 16 00
Orchids, of sorts, \$1 00 to \$3 00 each.	

We have many varieties not mentioned here. Also Bedding Plants in great variety. Not less than three plants of a kind sent. No order filled from this list for less than \$3.00.

TRADE LIST AND CATALOGUE FREE.

Robt. S. Brown & Son
BOX 99.
KANSAS CITY, MO.

F. R. PIERSON & CO.,

Tarrytown, New York, U. S. A.,

ORIGINAL AND LARGEST GROWERS OF



Lilium Harrisii Better known as The Bermuda Easter Lily

The Best in the World for Forcing for Winter Flowers.

WE OFFER ONLY STRONG FIELD-GROWN BULBS FROM OUR OWN GROUNDS IN BERMUDA.

THIS VALUABLE LILY IS OUR SPECIALTY.

We grow the bulbs by the acre on our own grounds in Bermuda. We were the first to grow it in large quantities and to offer it at reasonable prices, and we have always been recognized by the trade as

HEADQUARTERS FOR THE BERMUDA EASTER LILY.

Supplying the trade as we do both in this country and in Europe, and we hold by far the largest and the controlling stock of the genuine variety in the market.

The extent of our operations in this bulb alone will be best understood when we state that we expect to sell from OUR CROP of 1890, over a

HALF A MILLION BULBS.

Be sure you get the genuine Lilium Harrisii. In order to secure "the true variety," purchase your bulbs from original stock, which is known to be pure. The value of this Lily has led unscrupulous or ignorant parties to plant L. Longiflorum in Bermuda, or grow it there one season and send it out as Harrisii, and dealers should look with suspicion on bulbs offered at prices less than market rates, as the supply has never yet met the demand. "Mixed Bulbs" only being offered at reduced rates.

This is not only the best by far of all lilies for winter blooming, but it is one of the most profitable flowers that can be grown by florists. It is very easily handled, and the flowers being especially effective for decorative purposes, always command large prices. From its name some have thought it was a bulb for florists' use for forcing for the Easter market only. This is not exclusively so; it derives its name from the fact that, in Bermuda, grown in the open ground, it blooms at Easter time—hence the name "Bermuda Easter Lily," but by growing it in this country in the greenhouse, with successive lots, it can be had in bloom all the winter from early in December until after Easter; in fact, by special culture, all the year round, or as long as cut flowers are in demand. The fact that it can be forced into bloom by the Christmas holidays adds particularly to its value, as it fills in at a time when flowers are usually scarce and in great demand at high prices, but to accomplish this the bulb must be potted early in August, something depending upon after treatment and temperature when the bulbs are grown in.

For this purpose our Bermuda-grown bulbs are indispensable, as in Bermuda the bulb reaches its highest development, and ripens off perfectly, and is ready for shipment usually by the middle of July—before bulbs in our own country have hardly begun to make their growth. Our bulbs being grown in the open ground, in a climate naturally adapted for their perfect growth, are particularly strong and healthy at any time.

New Crop will be ready for delivery early in August. Orders booked for delivery at that date.

Large growers or dealers in this bulb should write us for special prices, stating quantity of bulbs desired, and we will give lowest estimate on the same by return mail.

F. R. PIERSON & CO.,

TARRYTOWN, NEW YORK, U. S. A.

Look Out for Him!

A man calling himself Joseph Schmidt, an Austrian, and having with him a recommendation from a man I knew to be a thoroughly reliable man and a good practical florist, wanted work from me. I took him on and after two weeks work he wanted me to advance him money to help him get clothes, he to pay it up by weekly installments. He was so plausible in every way that I did so. After working long enough to pay one fifth of the sum he owed me he skeddaddled leaving also board unpaid. He will likely turn up in Boston to play a similar game.

JOHN SPALDING.

New London, Conn.

[Since the above was received Mr. Spalding has forwarded to us a letter from another florist which shows that several others have been taken in by the same party.]

Snails.

I notice in your issue of April 15 a note on slugs among violets. I have been troubled exceedingly by them and was somewhat comforted to know that I had company in my misery. They have destroyed hundreds of pansy blossoms and violets. We call them snails here in Worcester. We have killed this winter, by actual count, 1,670. Have also been troubled by the sow-bugs referred to. They are very spry and like the darkness to work in. The snails or slugs may be baited with raw potatoes sliced up and placed around on the benches, for which they will leave everything else, and may be then caught easily and killed.

Worcester, Mass. W. E. SARGENT.

Choice Stock Cheap.

	Per 100
Primula Obconica, strong 2-in.	\$ 3.50
Cannas, choice varieties	3.00
Geranium, in 15 choice varieties, 2½-in.	3.00
Geranium White Swan, 2-in.	4.00
Geranium Rose Scented 2½-in.	3.50
Fuchsias, choice young stock, 2½-in.	3.00
Dusty Miller (Centauria gymnocarpa)	2.00
Abutilons, 1 varieties	3.10
Heliotrope Geranium, 2-in.	2.00
Trailing Vine Major, 2-in.	2.50
Violets Marie Louise and white, 2½-in.	3.00
Rose Bride, 3½-in.	4.00

25 or 50 of any the above at the 100 rate

Address N. S. GRIFFITH,

JACKSON CO. INDEPENDENCE, MO.
(Independence is well located for shipping, being 5 miles east of Kansas City.)

FINE STRONG PLANTS,

2½-inch pots, such as,

	Per 100
Geraniums, east, double and single	\$ 2.50
Coleus assort.	2.50
Pansies, fine strains, 4-in.	2.00
Salvia Splendens	2.50
Fuchsias, fine sorts	2.50
Heliotrope in strong stock, 2½-in.	2.50
Alternantheras in sorts	2.50
Basket and vase plants, such as Lantana, Alyssum, Ivies, Vines var. 17 Geraniums, etc. 2½	2.50
Twenty-five to fifty at hundred rate.	
Cash with order.	

W. H. SCHNABEL,

CROTON FALLS, N. Y.

ALTERNANTHERAS.

I have a surplus of six varieties of Alternantheras in 2 and 2½ inch pots, in good condition. Will sell at \$3.50 a 100.

Also ECHIVERIA SECUNDA GLAUCA, in same size pots, at same price.

ALEXANDER NEWETT,

22nd St. and Millard Ave., CHICAGO.

5,000 Verbenas, 3-inch pots, \$4 per 100; 2½-inch pots, \$3 per 100. All in bloom. Free from rust and mildew. Verschaffeltii and Golden Bedder Colens, 2½-inch pots, \$5.00 per 100; \$4.00 per 100.

Cash or New York or Philadelphia reference with every order.

DE WITT DEOS., Bristol, Pa.

SPECIAL CLEARANCE SALE.

	Per 100
200 Abutilons	2-in. \$3.00
50 Agaveas	2-in. 2.00
100 Ageratum	2-in. 2.00
450 Alternantheras	2-in. 2.00
100 Anthemiums	2-in. 3.00
40 Anemones	2-in. 4.00
20 Asparagus Foeniculum	2-in. 2.50
40 Begonias	2-in. 2.50
300 Begonias Rex	2-in. 3.00
100 Begonias Rex	3 and 4-in. 4.00
10 Begonias Countess of Errol	2-in. 2.00
1000 Bellis perennis	2-in. 1.50
50 Camellias	5 to 6 in. 50.00
500 Callas	2-in. 2.00
200 Callas	2-in. 2.10
100 Centaureas	2-in. 1.50
100 Chrysanthemums	2-in. 1.50
100 Clerodendrons	2-in. 4.00
200 Colons	2-in. 2.10
25 Cupress	2-in. 2.00
100 Cyclamen	2 and 3-in. 6.00
300 Dahlias	2-in. pot grown 2.00
30 Dracena Terminalis	2-in. 4.00
30 Dracena Indivisa	2-in. 4.00
25 Dracena Indivisa	4 to 6-in. 10.00
25 Euphorbia Jacquiniflora	2-in. 3.00
25 Fabsiana	2-in. 3.00
100 Fuchsias	2-in. 3.00
300 Fuchsias	2-in. 3.00
150 Fuchsias Fulgens	2-in. 4.00
200 Fuchsias Fulgens	2-in. 4.00
1000 Geraniums	2-in. 2.00
200 Geraniums Oriental	2-in. 3.00
200 Geraniums Scord	2-in. 3.00
200 Geraniums Ivy Leaf	2 and 3-in. 4.00
20 Lantanas	2-in. 3.00
25 Libanias	2-in. 3.00
15 Laurens Nobilis	2-in. 3.00
10 Lobelia (Wave of Blue)	2-in. 4.00
100 Nelumbegia	2-in. 10.00
30 Nelumbegia	2-in. 2.00
200 Nelumbegia	2-in. 2.00
50 Ohonaa	2-in. 3.00
100 Hydrangea Thomas Hogg	2-in. 3.00
100 Hydrangea Thomas Hogg	2-in. 3.00
250 Palms Chamerops Humilis	2-in. 4.00
250 Palms Chamerops Excelsa	2-in. 4.00
100 Palms Phoenix Borbonica	2-in. 4.00
100 Palms Phoenix Sylvestris	2-in. 4.00
40 Cyclops Australia	2-in. 4.00
50 Pycnosperma Alexandre	2-in. 4.00
50 Pycnosperma Alexandre	2-in. 4.00
100 Chamorops	2-in. 4.00
25 Chamorops	2-in. 15.00
300 Coca Weddelliana	2-in. 15.00
50 Primula Chimensis	2-in. 15.00
50 Clematis, 3 years, dormant	2-in. 1.00
40 Pileas	2-in. 2.00
100 Plumbago	2-in. 3.00
40 Ruscias	2-in. 3.00
50 Russella	2-in. 3.00
300 Richardias	2-in. 4.00
100 Variegated Phym	2-in. 2.00
200 Vincas, variegated (Harrisoni)	2-in. 3.00
300 Monthly Roses	2-in. 2.50
1000 Monthly Roses	2-in. 2.50

Hardy Climbers and Shrubs.

	Per 100
25 Akebia Quinata	2-in. 4.00
40 Honey suckles	2-in. 3.00
400 Ampelopsis Veitchii	2-in. 2.00
50 Ampelopsis Veitchii	4-in. 10.00
40 Clematis	2-in. 2.00
300 Dentia Gracilis	2-in. 2.00
100 Dentia Gracilis	2-in. 2.00
100 Philadelphus	2-in. 2.00
20 Hardy Hydrangeas	2-in. 2.00
40 Viburnum	2-in. 2.00
100 Weigella	2-in. 2.00
50 Spiraea	2-in. 2.00

JOS. E. BONSALE,

308 Garfield Ave., SALEM, OHIO.

SMILAX.

Fine young plants, \$2.00 and \$3.00 per 100; \$15.00 and \$25.00 per 1000.

FREESIAS, nice home grown bulbs, \$1.00 per 100; \$9.00 per 1000.

P. A. BALLER,

BLOOMINGTON, ILL.

SUGAR MAPLES.

The Finest of All Shade Trees. Orders booked now for Fall Delivery.

Sugar Maples, 4 to 6-in.	per 1000 \$4.00; per 10,000, \$30.00
5 to 8 feet, per 100,	500, 1000
Sugar Maples.....	5 to 8 " \$10.00 \$27.50 \$50.00
Scarlet Maples.....	5 to 8 " 10 00 30 00 55 00
Water Maples.....	5 to 8 " 8 00 25 00 45 00
White Ash.....	5 to 8 " 8 00 25 00 45 00
Evergreens in variety. Submit list for quotations on anything needed.	

W. W. HENDRIX, Bowling Green, Ky.

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OF OUR NEW

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Price, \$2.00.

AMERICAN FLORIST CO., Chicago.

BASKETS

FOR SCHOOL COMMENCEMENTS.

Imported and Domestic make.

Apply for Special Price List to

AUGUST RÖLKER & SONS,

Dealers in Florists' Supplies,

No. 136 W. 24TH ST., NEW YORK.

NEW HYDRANGEA



"RED BRANCHED."

"The most valuable of all the Hydrangeas of the Hortensia Class." Without doubt the most valuable of all Hydrangeas yet introduced. Trusses and flowers larger and brighter than those of Otakasi; a very free bloomer, producing large and magnificently-formed trusses from every shoot. The best known variety for forcing and culture in pots or tubs. Catalogue, giving description and prices, mailed free. 50th Year.

Elwanger & Barry, MT. HOPE NURSERY, ROCHESTER, N. Y.

SPECIAL LOW OFFER.

	Per 100
Aucuba Japonica Variegata, from 4-in. pots at	\$5.00
Anapellips Veitchii, 3-ft. dormant, at	5.00
Roses—Forté des Jardins, from 4-in. pots at	10.00
" " " " 2½-in. pots at	4.00
" " " " 2-in. pots, at	10.00
" " " " 2-in. pots, at	3.50
" " " " 2-in. pots, at	10.00
" " " " 2-in. pots, at	10.00
" " " " 2-in. pots, at	3.50
Ficus Elastica, from 4-in. pots, at \$3.00 per doz.	
Tuberose halbs, at	1.50
A large assortment of Clematis; prices on application.	

SIDNEY TUTTLE & CO.

BLOOMINGTON, PHOENIX NURSERY,

BLOOMINGTON, ILL.

CHOICE FLORISTS' STOCK.

	Per 100
Colens, fine plants Verschaffeltii, G. Bedder	\$ 3.00
and 4 Goodes	3.00
Geraniums, best D. & S. sorts for bedding, 4-in.	5.00
Ivy Geraniums, best 6 vars., dbl. pink, white, etc., 4-in.	10.00
English Ivy, 2½-in.	2.00
Pansies Butterfly, Fancy & Trimardean strains 2½	2.00
Inclined best double white, pink and red vars. in cultivation, 3-in.	3.50
Also general assortment of stock. Write us for prices on anything you need.	

CRABB & HUNTER, Grand Rapids, Mich.

All through June it is still time to get some

Seedlings of Tuberous Begonias

and have them bloom by September or October.

If you want big plants, order by express, at \$2.50 per 100; by mail, \$3.00.

BRAUER & RICHTER,

MC CONNELLSVILLE, OHIO.

Musa, Orinoco Bananas and Jamaica, 2 yr. \$1.00 each;

per 10 \$7.50

Colens from 2-inch pots, strong, \$2.00 per 100

Strawberry plants, Haverland, \$5.00 per 1000, Jessie,

Warwick, Babach No. 5, and all leading kinds,

\$2.50 per 1000.

Tomato and Cabbage plants, \$1.50 per 1000.

Pepper plants, \$1.00 per 100

Arbor Vitae and Red Cedar, 4 to 6 ft. \$25.00 per 100;

each, 50 cents.

BONNER SPRINGS NURSERIES,

Bonner Springs, Kansas.

A. BLANC,

ENGRAVER FOR FLORISTS.
PHILADELPHIA, PA.



Electro of this Cut, \$2.00.

LARGEST STOCK OF ELECTROTYPES OF PLANTS AND FLOWERS FOR FLORISTS' CATALOGUES, ETC. Complete Catalogues 50c. deducted from first order.

Agency for the sale of Electrots of MESSRS. VIL-MORIN ANDRIEUX & CO., (Paris.)

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Any other printing you want, but had printing; can't afford that at any price. Write to

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PRINTER FOR NURSERYMEN, SEEDSMEN and FLORISTS

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and
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The Aldine Printing Works, Cincinnati, O., for samples and prices before ordering elsewhere.

[Mention The American Florist.]



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We carry a complete line of all the NEWEST and BEST HORTICULTURAL TOOLS and other supplies. Our Special Circular describes them all. Send for it Free. Send also for our FREE. Send 10c. Special Fertilizer Sample Circular. For most complete SEED CATALOGUE published.

JOHNSON & STOKES,
217 and 219 Market St., Philadelphia, Pa.

BOILERS AND PIPE FOR SALE.

(One Hittings No. 17; three Meyers; one Swayne. 700 feet 4-inch pipe and fittings in good order. Write for prices.)

Also Perles, Mermets, Niphetos, La France and Brides, 2½ each at \$5.00 per 100.

THE FLORAL EXCHANGE,
614 Chestnut St., Philadelphia, Pa.

NEW CROP 1890. EVERGREEN CUT FERNS Especially for Florists' Use.



FANCY.



DAGGER

Single Thousand, \$1.50. Five Thousand, \$6 25.
Ten Thousand, \$10 00.

SPECIAL ATTENTION PAID TO SUPPLYING THE WHOLESALE TRADE.

Sample lot of 250 Ferns by mail, postpaid to any part of the U. S. for 50 cts. White Daisies in their season, 75¢ per 1000; 10,000, \$5. Bonquet Green, \$2.00 per bbl., or \$5.00 per cwt. Bonquet Green Wreathing, from 3 to 5 in. diameter, from 3 to 10 cts. per yard. Sphagnum Moss, long clean fibre, dry or green, \$1.00 per bbl.; 5 bbls. \$5.00; 20 bbls. \$15.00; 100 bbls. \$55.00.

L. B. BRAGUE,
DEALER IN FLORISTS' SUPPLIES,
HINSDALE, MASS.

Mention American Florist.

PRIMROSE SEED.

The finest strains of Chinese Primroses.
FIFTEEN COLORS.

Packets containing 400 seeds of the best selling kinds specially for florists. Price per pkt. \$1.00. Circulars telling how to grow primroses and prices of each variety free. Address
HENRY S. RUPP & SONS, Shiremanstown, Pa.

FLORAL * DESIGNS.

A book which tells how to make them and shows how they look. Fifty tinted plates of approved designs, in fine shape for showing to customers in place of the bare wire designs; it "gets there" much better, and looks pretty while doing it. It is a good investment for any working florist at \$3.50, postpaid, and can be had of

J. HORACE MCFARLAND,
Box 55. HARRISBURG, PA.

LONG'S Floral Photographs.

These fine plates—seventy-five in number—are now offered to the Trade.

They will help you to better priced orders for designs, bouquets, etc., as they give customers an exact idea of what to expect for their money. They will educate to the making up of more stylish work.

ARTISTIC. BEAUTIFUL. PERFECT.
Write for Catalogue with full description and prices.

DAN'L B. LONG, Florist,
BUFFALO, N. Y.

THE American Florist Company's DIRECTORY

OF

{ FLORISTS,
NURSERYMEN,
AND SEEDSMEN,

OF THE

UNITED STATES AND CANADA. FOR 1890 NOW READY,

Price, \$2.00.

SEND IN YOUR ORDERS.

The new book is a very great advance upon the old one, as we have covered the whole country by correspondence and obtained original lists of those in the trade in every city and town in the United States and Canada. We believe that the list is now as nearly correct as it is possible to get it.

AMERICAN FLORIST CO., 54 La Salle St., CHICAGO.

Soft Coal and Brick Flues.

In reply to the inquiry of J. C. R. in the FLORIST May 1, in regard to using soft coal with a brick flue, I answer: I have no difficulty in doing it, and prefer soft coal to anthracite, for the reason it is less labor to care for the fire. The cost for coal is no greater—I think less—and after I had learned to use it I found it easier to run the fire. My chimney is at the furnace, which has a direct damper for use in starting the fire and in replenishing with coal. The flue is eight inches wide by fourteen deep and goes two years without cleaning. An important point is provision for the admission of air above the grate to burn off the gas. I have never seen any ill effects produced by escape of gas into the house. The draft is good, as the chimney is always warm. First cost of my heating apparatus about one third what hot water boiler and pipes would cost. S. F.

—In answer to the inquiry of J. C. R. in regard to brick flues I would say my experience has been that unless the draught is exceedingly smart soft coal cannot be used without more or less gas escaping. I have used wood the past winter with great satisfaction. As I keep a night man I find no trouble in keeping my houses warmer than I could have done otherwise. I also found it much cheaper than coal, as the cost of wood delivered at my greenhouses was only \$2 per cord. W. E. SARGENT.

Worcester, Mass.

DID YOU SAY

You have not tried HUGHES' SOLUBLE

FIR TREE OIL,

And that you want an effective Insecticide, then do what other florists of experience and wisdom have done before you, and order at once a trial gallon. Read the previous numbers of the FLORIST to find out what it will do. Dozens and dozens of American testimonials have confirmed what I claim for it.

E. GRIFFITH HUGHES,

Operative Chemist.

MANCHESTER, ENGLAND.

PRICE: { Put up in 1 gallon tins, \$3.25 }
 { Put up in 1 quart tin, \$1.00 }

TO SECURE THE GENUINE ARTICLE, see that each tin shows a white label with red trade mark, full directions how to use and the name of

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SPHAGNUM PACKING MOSS, in bales.

GREEN ORCHID MOSS, in barrels.

FIBROUS PEAT, FOR ORCHIDS, in sacks.

Tree and Plant Labels of all kinds, printed, painted or plain.

MAILING BOXES.

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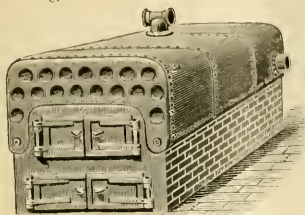
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3-inch	"	2.50	5-inch	"	4.00
4-inch	"	2.75	6-inch	"	4.50
5-inch	"	3.00	8-inch	"	5.00
6-inch	"	3.25	10-inch	"	5.50
7-inch	"	3.50	12-inch	"	6.00
8-inch	"	3.75	14-inch	"	6.50
9-inch	"	4.00	16-inch	"	7.00
10-inch	"	4.25	18-inch	"	7.50
11-inch	"	4.50	20-inch	"	8.00
12-inch	"	4.75	22-inch	"	8.50
13-inch	"	5.00	24-inch	"	9.00
14-inch	"	5.25	26-inch	"	9.50
15-inch	"	5.50	28-inch	"	10.00
16-inch	"	5.75	30-inch	"	10.50
17-inch	"	6.00	32-inch	"	11.00
18-inch	"	6.25	34-inch	"	11.50
19-inch	"	6.50	36-inch	"	12.00
20-inch	"	6.75	38-inch	"	12.50
21-inch	"	7.00	40-inch	"	13.00
22-inch	"	7.25	42-inch	"	13.50
23-inch	"	7.50	44-inch	"	14.00
24-inch	"	7.75	46-inch	"	14.50
25-inch	"	8.00	48-inch	"	15.00
26-inch	"	8.25	50-inch	"	15.50
27-inch	"	8.50	52-inch	"	16.00
28-inch	"	8.75	54-inch	"	16.50
29-inch	"	9.00	56-inch	"	17.00
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31-inch	"	9.50	60-inch	"	18.00
32-inch	"	9.75	62-inch	"	18.50
33-inch	"	10.00	64-inch	"	19.00
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35-inch	"	10.50	68-inch	"	20.00
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39-inch	"	11.50	76-inch	"	22.00
40-inch	"	11.75	78-inch	"	22.50
41-inch	"	12.00	80-inch	"	23.00
42-inch	"	12.25	82-inch	"	23.50
43-inch	"	12.50	84-inch	"	24.00
44-inch	"	12.75	86-inch	"	24.50
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49-inch	"	14.00	96-inch	"	27.00
50-inch	"	14.25	98-inch	"	27.50
51-inch	"	14.50	100-inch	"	28.00
52-inch	"	14.75	102-inch	"	28.50
53-inch	"	15.00	104-inch	"	29.00
54-inch	"	15.25	106-inch	"	29.50
55-inch	"	15.50	108-inch	"	30.00
56-inch	"	15.75	110-inch	"	30.50
57-inch	"	16.00	112-inch	"	31.00
58-inch	"	16.25	114-inch	"	31.50
59-inch	"	16.50	116-inch	"	32.00
60-inch	"	16.75	118-inch	"	32.50
61-inch	"	17.00	120-inch	"	33.00
62-inch	"	17.25	122-inch	"	33.50
63-inch	"	17.50	124-inch	"	34.00
64-inch	"	17.75	126-inch	"	34.50
65-inch	"	18.00	128-inch	"	35.00
66-inch	"	18.25	130-inch	"	35.50
67-inch	"	18.50	132-inch	"	36.00
68-inch	"	18.75	134-inch	"	36.50
69-inch	"	19.00	136-inch	"	37.00
70-inch	"	19.25	138-inch	"	37.50
71-inch	"	19.50	140-inch	"	38.00
72-inch	"	19.75	142-inch	"	38.50
73-inch	"	20.00	144-inch	"	39.00
74-inch	"	20.25	146-inch	"	39.50
75-inch	"	20.50	148-inch	"	40.00
76-inch	"	20.75	150-inch	"	40.50
77-inch	"	21.00	152-inch	"	41.00
78-inch	"	21.25	154-inch	"	41.50
79-inch	"	21.50	156-inch	"	42.00
80-inch	"	21.75	158-inch	"	42.50
81-inch	"	22.00	160-inch	"	43.00
82-inch	"	22.25	162-inch	"	43.50
83-inch	"	22.50	164-inch	"	44.00
84-inch	"	22.75	166-inch	"	44.50
85-inch	"	23.00	168-inch	"	45.00
86-inch	"	23.25	170-inch	"	45.50
87-inch	"	23.50	172-inch	"	46.00
88-inch	"	23.75	174-inch	"	46.50
89-inch	"	24.00	176-inch	"	47.00
90-inch	"	24.25	178-inch	"	47.50
91-inch	"	24.50	180-inch	"	48.00
92-inch	"	24.75	182-inch	"	48.50
93-inch	"	25.00	184-inch	"	49.00
94-inch	"	25.25	186-inch	"	49.50
95-inch	"	25.50	188-inch	"	50.00
96-inch	"	25.75	190-inch	"	50.50
97-inch	"	26.00	192-inch	"	51.00
98-inch	"	26.25	194-inch	"	51.50
99-inch	"	26.50	196-inch	"	52.00
100-inch	"	26.75	198-inch	"	52.50
101-inch	"	27.00	200-inch	"	53.00
102-inch	"	27.25	202-inch	"	53.50
103-inch	"	27.50	204-inch	"	54.00
104-inch	"	27.75	206-inch	"	54.50
105-inch	"	28.00	208-inch	"	55.00
106-inch	"	28.25	210-inch	"	55.50
107-inch	"	28.50	212-inch	"	56.00
108-inch	"	28.75	214-inch	"	56.50
109-inch	"	29.00	216-inch	"	57.00
110-inch	"	29.25	218-inch	"	57.50
111-inch	"	29.50	220-inch	"	58.00
112-inch	"	29.75	222-inch	"	58.50
113-inch	"	30.00	224-inch	"	59.00
114-inch	"	30.25	226-inch	"	59.50
115-inch	"	30.50	228-inch	"	60.00
116-inch	"	30.75	230-inch	"	60.50
117-inch	"	31.00	232-inch	"	61.00
118-inch	"	31.25	234-inch	"	61.50
119-inch	"	31.50	236-inch	"	62.00
120-inch	"	31.75	238-inch	"	62.50
121-inch	"	32.00	240-inch	"	63.00
122-inch	"	32.25	242-inch	"	63.50
123-inch	"	32.50	244-inch	"	64.00
124-inch	"	32.75	246-inch	"	64.50
125-inch	"	33.00	248-inch	"	65.00
126-inch	"	33.25	250-inch	"	65.50
127-inch	"	33.50	252-inch	"	66.00
128-inch	"	33.75	254-inch	"	66.50
129-inch	"	34.00	256-inch	"	67.00
130-inch	"	34.25	258-inch	"	67.50
131-inch	"	34.50	260-inch	"	68.00
132-inch	"	34.75	262-inch	"	68.50
133-inch	"	35.00	264-inch	"	69.00
134-inch	"	35.25	266-inch	"	69.50
135-inch	"	35.50	268-inch	"	70.00
136-inch	"	35.75	270-inch	"	70.50
137-inch	"	36.00	272-inch	"	71.00
138-inch	"	36.25	274-inch	"	71.50
139-inch	"	36.50	276-inch	"	72.00
140-inch	"	36.75	278-inch	"	72.50
141-inch	"	37.00	280-inch	"	73.00
142-inch	"	37.25	282-inch	"	73.50
143-inch	"	37.50	284-inch	"	74.00
144-inch	"	37.75	286-inch	"	74.50
145-inch	"	38.00	288-inch	"	75.00
146-inch	"	38.25	290-inch	"	75.50
147-inch	"	38.50	292-inch	"	76.00
148-inch	"	38.75	294-inch	"	76.50
149-inch	"	39.00	296-inch	"	77.00
150-inch	"	39.25	298-inch	"	77.50
151-inch	"	39.50	300-inch	"	78.00
152-inch	"	39.75	302-inch	"	78.50
153-inch	"	40.00	304-inch	"	79.00
154-inch	"	40.25	306-inch	"	79.50
155-inch	"	40.50	308-inch	"	80.00
156-inch	"	40.75	310-inch	"	80.50
157-inch	"	41.00	312-inch	"	81.00
158-inch	"	41.25	314-inch	"	81.50
159-inch	"	41.50	316-inch	"	82.00
160-inch	"	41.75	318-inch	"	82.50
161-inch	"	42.00	320-inch	"	83.00
162-inch	"	42.25	322-inch	"	83.50
163-inch	"	42.50	324-inch	"	84.00
164-inch	"	42.75	326-inch	"	84.50
165-inch	"	43.00	328-inch	"	85.00
166-inch	"	43.25	330-inch	"	85.50
167-inch	"	43.50	332-inch	"	86.00
168-inch	"	43.75	334-inch	"	86.50
169-inch	"	44.00	336-inch	"	87.00
170-inch	"	44.25	338-inch	"	87.50
171-inch	"	44.50	340-inch	"	88.00
172-inch	"	44.75	342-inch	"	88.50
173-inch	"	45.00	344-inch	"	89.00
174-inch	"	45.25	346-inch	"	89.50
175-inch	"	45.50	348-inch	"	90.00
176-inch	"	45.75	350-inch	"	90.50
177-inch	"	46.00	352-inch	"	91.00
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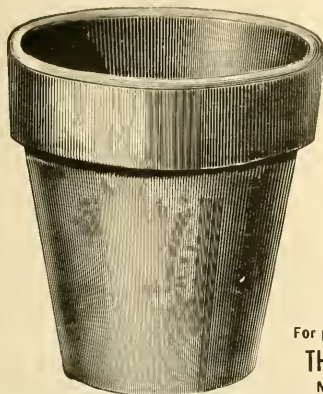
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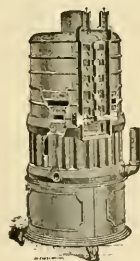
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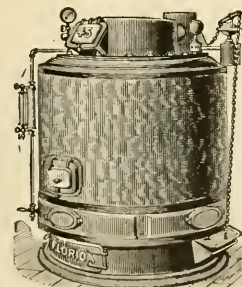
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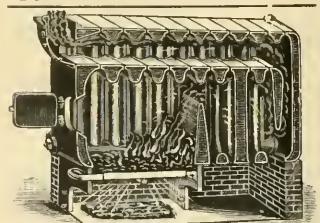
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Index to Advertisers.

Advertising Rates, etc.	522
Alberts G J & Co.	529
Aldine Printing Wks.	533
Allen, W. A.	530
Angier P A & Co.	534
Bailey P A.	532
Bayersdorfer H & Co.	534
Berger, H. H. & Co.	529
Riano A.	529
Bloomfield John.	530
Bonsall Jos B.	532
Brackenridge & Co.	533
Brace L B.	533
Brauer & Richter.	532
Breck Jos & Sons.	532
Brown R S & Son.	531
Burrow J G.	528
Carmody J D.	528
Crabb & Hunter.	528
Crelighton George.	528
De Voe J A.	528
Devina, Peter.	528
De Witt Bros.	532
Diez, John L. & Co.	535
Dillon, J. L.	521 533
Dingee & Conard Co.	521
Dreier, H. A.	529
Ellwanger & Barry.	521
Ferguson John.	521
Fisher Bros & Co.	528
Fisk Chas H.	523
Floral Exchange.	523
Fress O W.	523
Gardiner Jno & Co.	523
Germont & Cusgrave.	521
Gibson J C.	530
Greene W W & Co.	528
Gray Ben.	528
Grey, N. S.	532
Hall Association.	528
Hales, H. W.	528
Hallock, V. H. & Son.	530
Hammond, Benj.	528
Hammond & Hunter.	528
Harland W B.	528
Hendersen John Co.	521
Hendrix W W.	532
Herendeen Mfr. Co.	528
Herr, Albert M.	529
Hillinger Bros.	534
Hilpert E.	534
Hitchings & Co.	536
Hooker, H.	534
Horan, Edw C.	528
Hoyt R D.	529
Hudson John M.	528
Hulsebosch A.	527
Hunt E H.	528
Hunt M A.	521
Hughes E G.	534
Hurt Freeman.	528
Ives, J. H.	534
Johnson Jabez.	529
Johnson & Stokes.	533
Justen C H.	528
Jordan Floral Co.	521
Jurens W A.	523
Kennett Bros.	523
Kero H H.	532

Kirkham W J.	529
Kramer I N & Son.	528
Krick, W. C.	536
Kronbach Charles.	534
La Roche & Stahl.	523
Lockland Lumber Co.	533
Long Daniel B.	529
Longdale Edwin.	529
McCarty N F & Co.	529
McFarland J Horace.	523
McNally Ed.	525
MacKenzie Geo.	528
Mathews, Wm.	529
May John N.	521
Memphis Floral Co.	521
Michel Plant Seed Co.	529
Miller, Geo. W.	521
Mooy Polman.	527
Morais F Sons & Ch.	530
Mullins Geo.	523
National Hot Water Heater Co.	535
Newatt Alex.	532
Pennock Chas F.	532
Pierce Butler & Pierce.	533
Pierson F R & Co.	531
Plouffe, Joseph.	535
Quaker City Mch. Wks.	534
Reed & Keller.	527
Roesch Lewis.	527
Rogers Isaac C.	530
Schaker & Sons.	523
Ross & Milling.	523
Rupp H S & Son.	533
Schifford Geo.	529
Schiller & Matlander.	529
Schnabel W H.	532
Schulz Jacob.	529
Scollay, John A.	536
Segers Bros.	537
Shelmirer W.	528
Sheridan W F.	523
Siebrecht & Wadley.	529
Sighe Joseph & Co.	535
Situations, Wants.	539
Spooner Wm H.	530
Stearns A T Lumber Co.	534
Steffen N.	531
Stevens B A.	536
Stewart, Wm.	523
Strauss C & Co.	523
Sunder N.	524
Striddeater of Growers.	523
Taylor John H.	532
Thorpe John.	529
Tattle Sidney & Co.	530
Van der Schoot & Sons.	527
VanZanten G V & Co.	528
Vaughan J C.	526
Ware Thos S.	528
Weathered, Thos. W.	536
Welch Bros.	523
Whildin Pottery Co.	533
Williams H W & Son.	535
Wisconsin Flower Ex.	528
Witbold Geo.	529
World L Mfg Co.	534
Wood Bros.	530
Yong, Thos. Jr.	533

HAVERHILL, MASS.—The success of the recent exhibition by the Horticultural Club induced it at last meeting to perfect its organization and authorize the president to consider the advisability of electing a secretary who shall be a paid officer of the club. A rose show will be given during June.



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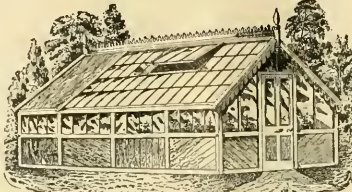


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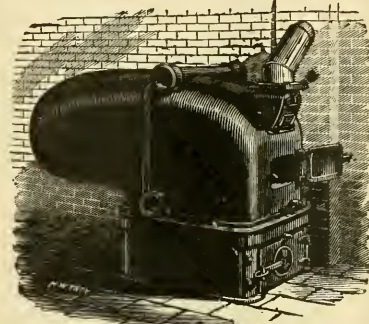


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THE AMERICAN FLORIST



America is "the Prow of the Vessel; there may be more comfort Amidships, but we are the first to touch Unknown Seas."

Vol. V.

CHICAGO AND NEW YORK, JUNE 15, 1890.

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SOCIETY OF AMERICAN FLORISTS.

J. M. JORDAN, St. Louis Mo., pres. d-nit; M. H. NORTON, Boston, Mass., vice president; W. J. STEWART, 67 Bromfield St., Boston, Mass., secretary; M. A. HUNT, Terre Haute, Ind., treasurer. The sixth annual meeting at Boston, Mass., August, 19, 20, 21, 22, 1889.

CONTENTS.

The nurserymen's convention	537
The cyclamen	538
Nelumbium speciosum	538
Giant cyclamens (illustration)	539
Common flowers for Decoration Day	540
Calles in California (with illustration)	541
Epacris (with illustration)	542
Cutting down chrysanthemums	542
The chrysanthemum	542
The rose plant louse (with figures)	544
Spittle insects	545
Naming orchids	546
Commercial ratings	548
Color	548
The nurserymen at New York	548
Catalogues received	548
American Seed Trade Association	550
Steam heating	550
Coming exhibitions	550
The Boston convention	550
Florists' Club directory	550
News notes	552
A suggestion	554
New York	556
Fumigators	555

A LARGE delegation of florists and dealers in florists' supplies, among them Messrs. Rolker and Manda, of New York, and Messrs. Craig, Lonsdale and Hancock, of Philadelphia, were in Washington June 3 and 4, to secure a hearing before the Senate Committee on Finance and to protest against that clause of the McKinley tariff bill which places an import duty on plants.

THE DATE of the sixth annual convention of the Society of American Florists is approaching. Are you arranging matters so that you can be in Boston August 19 to 22 to receive the benefits of that meeting, and to enjoy the hospitality of the florists and gardeners of the Hub?

THE PRESENTATION of Mr. F. Sander, the well known orchid collector and dealer, to Queen Victoria is taken by an English paper as a distinction which will be regarded as an acknowledgement of the supremacy of the orchid and a presage of still greater popularity.

The Nurserymen's Convention.

The fifteenth annual meeting of the Nurserymen's Association was held in New York June 4 to 7. The attendance was large, and the sessions were of marked interest, the delegates showing hearty attention to all the questions brought before the society. They represented almost all sections of the country; but the very large proportion of western growers was a positive revelation to those only acquainted with eastern interests in horticulture.

The meeting was opened by President Sweet, of New York, who delivered a timely address. He commented on the many changes in the trade; within the memory of middle aged men western New York had a practical monopoly of the nursery business, scarcely thirty years ago there was little or nothing done west of Buffalo. Now the nursery trade, like the center of population, has moved west, and at the present time more is grown west of Central Ohio than was formerly produced in the whole United States. In those old days there was only one secret of success, and that was to plant. Fortune soon followed, and there seemed no limit to the capabilities of the industry. Of late years the business has greatly changed; the difficulty now is not in producing trees, but in finding a market.

Mr. Sweet spoke of the value of the convention in trying to solve the question of industrial success, either in increasing the outlet or in determining a decreased production. The same question confronting the grower of cheap wheat confronts the nurserymen. Can the question be solved only by the law of supply and demand, or is it subject to artificial solution? Mr. Sweet said that in his opinion the best days for the trade had passed—that is, the day of large profits; for the future the business seems likely to reap but a moderate return. If this is so, it will be well to recognize the fact and arrange our plans accordingly. If the general public can once come to a right understanding of the small profits realized in proportion to the risks assumed we can sooner eliminate from the trade that class of adventurers who join the ranks only long enough to make a single planting, as a matter of temporary speculation. Such speculations, it is true, commonly result in loss to the speculators, but they tend to demoralize markets and work serious injury to legitimate trade. It is unfortunate therefore that the outside world does not more fully realize that no other business of like magnitude is subject to such extreme risks as ours. (Note. These remarks and some just following are so closely applicable to the flower trade that they might be made by a florist as well as a nurseryman.) To equalize risks there should be occasional chances for profit. This business has been ill repaid for 15 years past, but the

general decline in monetary value naturally affects all legitimate business.

The chief uncertainty in the immediate business future lies in the recently enforced Canadian tariff. The export trade is very large, and it would seem wise for the convention to consider the propriety of urging the adoption of a reciprocity treaty with Canada, which shall remove these artificial restrictions. Mr. Sweet continued that every new market we can open for our fruits, every new appliance for safe transportation, every new variety that will lengthen out the season, every new process for canning, evaporating or preserving will stimulate fruit growing and create activity in the trade.

Mr. Sweet's address, which was received with enthusiasm, was followed by reports of secretary, treasurer and special committees.

The first essay of the session was "The Question of New Fruits," by the Hon. H. E. Van Deman, United States Pomologist. He gave valuable data concerning the best introductions of the year, among well known fruits, and also suggested opportunities for the culture of fruits and nuts at present little known in the United States, particularly those adapted to the southern states.

The question box next claimed attention, most of the queries relating to questions of tree propagation. Some one brought up the subject of nomenclature, but it was said that it would take three governments to regulate and straighten out the tangle, and the matter was dropped like a hot potato.

Prof. Bailey, of Cornell University, gave an essay on "Root Grafting and Budding," illustrated by photographs of his experiments, which was followed by a brisk discussion.

J. Jenkins, of Ohio, was down for an essay on "Bugs that Bother Botanical Buccaneers." He urged his hearers to remember that he was neither a funny man nor a man of science, but his essay proved a very funny parody on the heavy science we get in a good many official reports, and it provoked a regular gale of laughter.

G. E. Meissner, of Missonri, delivered an essay on the question "Can Stock be Dug and Shipped too early in the Fall?" which was decidedly answered in the affirmative. The harm done by the hurry of a busy nurseryman, who must have everything ready for delivery at a certain time, was fully set forth. The evil of this practice, often very difficult to avoid, will be readily understood by any one who has bought much nursery stock.

The second day Prof. Meacham, of Philadelphia, gave a most interesting talk on the subject "Do we Live and Learn?" The venerable botanist was received with the applause that always greets his public utterances, as he spoke of his first appearance in horticultural papers, half a

century ago. He expressed some little disappointment in the progress made since then; practical science does not seem to have made the strides predicted in many directions. Relative to non-progressive ideas, the professor alluded to the practice of lopping off the tops of trees, under the impression that they then made a stronger growth because the roots had less to support. On the contrary, the quick growth following is due to the support stored in the trunk, while the sharp pruning gives a check to the vital power which finally lowers the stamina of the tree. In this matter, and in some other common practices, the professor decided that we do not always live and learn.

The Hon. S. M. Emery, of Minnesota, then gave a paper on "The Cause of Low Prices for Nursery Stock," which contained a good deal of solid sense for nurserymen to reflect on. He said that the demand at present is very great—there has been a great loss of stock, and yet prices are lower than ever. The contract system of growing, practiced quite extensively in some localities, was suggested as one reason; selling by agents was another. The agents or middlemen were quite severely handled all round; after hearing the candid opinions of the nurserymen it is a wonder how the tree peddlers and agents continue to exist. Mr. Emery treated his subject with frankness and vigor; many of his remarks about the competition of irresponsible dealers and the evil of the agent system apply pretty strongly to other branches of horticulture beside nursery stock.

The second day officers were elected for the ensuing year, they were as follows: President, S. M. Emery, Lake City, Minn.; Secretary, Chas. A. Green, Rochester, N. Y.; Treasurer, A. R. Whitney, Franklin Grove, Ill.; Executive Committee, Irving Rouse, Rochester, N. Y., W. J. Peters, Troy, Ohio, and Franklin Davis, Baltimore, Md. The next place of meeting is to be either St. Paul or Minneapolis, as the committee shall decide.

After this business was decided, J. T. Lovett, of New Jersey, answered the question "How can we best prevent duplicates in our mailing lists?" He explained his system of mailing catalogues, one of the excellent points suggested being the arrangement according to the same system as the mail list of a newspaper. Another good suggestion was the use of a reference book, in which the names were kept, with the addition of a cipher statement of results—whether the catalogue had received any response, whether it had resulted in an order, etc. By going through this list every two or three years the irresponsible names may be dropped out.

G. J. Carpenter, of Nebraska, gave a very bright talk about "Advertising: How can it best be done?" Mr. Carpenter is of the opinion that the best advertising a man can get is free advertising, which results from a well satisfied customer. Newspaper advertising is all right when you get a good paper and a good display, but he does not believe in a paper where they appear to load the ads. in a squirt-gun and let them drive just any space where they will stick. Nor does Mr. Carpenter approve of an advertising medium where they place the garden columns with a page of patent medicine ads., and put the nursery ads. opposite the column devoted to hogs. Mr. Carpenter's paper appeared to strike right home.

Mr. Albaugh, of Ohio, next read a very bright poem called "The Old and the

New," which Mr. Bellamy must have forgotten to put in "Looking Backward;" its personal hits brought down the house. A discussion about plant registration was called out by the reading of a very elaborate system suggested from California. It was a very modest little system, only about fourteen times more difficult than the Linnaean classification, and it offered to take in all the earth and the waters under the earth, until there wouldn't be a single unregistered plant at large. It was rather a relief to the stunned audience, after the suggestion was finished, when J. H. Hale, of Connecticut, moved that as it covered such a wide range it might be referred to the man in the moon. This matter was discussed by Mr. Parsons, of Flushing, Prof. Bailey and others.

F. W. Kelsey, of New York, spoke on the subject of "Transplanting Evergreens," followed by a discussion.

J. H. Hale, of Connecticut, told what he knew about peaches, detailing his struggles with that fruit on a Connecticut farm. A good deal of good natured chaff was thrown at him; Mr. Hale's peaches appear well known to the society, but his bright speech was much applauded and followed by a lively discussion.

The third morning J. W. Manning, of Reading, Mass., gave a paper on "Hardy Perennials in Nursery Catalogues." It appeared the general opinion that these plants might be catalogued by nurserymen to their advantage and without conflicting with regular plant growers. (Doubtful, though, whether they could compete with regular growers who make such plants a specialty.)

S. C. Moon, of Pennsylvania, gave an essay on "Chestnut culture," followed by discussion.

R. E. Fernow, Chief of Forestry Division, Washington, gave an essay on "The Relation of Nurserymen to the Forestry Question." A good many of the nurserymen disagreed with Mr. Fernow's ideas, and the subject was discussed by Messrs. Parsons, Meehan, Carpenter, Patten and others.

Mr. Williams, of New Jersey, made a few remarks about strawberries, exemplified by fine berries of Jessie and Pearl.

The relation of horticulture to the coming World's Fair being discussed, Mr. J. D. Reynolds, of Chicago, was unanimously endorsed as horticultural commissioner with flattering warmth.

Prof. Bailey offered a resolution requesting Congress to set aside \$5,000 of the \$100,000 appropriated to forestry, for the use of the pomologist.

After some further business details the convention then adjourned 'till next year.

EMILY LOUISE TAPLIN.

The Cyclamen.

Cyclamen persicum is the one that is grown and sold by florists as potted plants for winter decoration, and when well handled it is a beautiful, desirable and very satisfactory subject. It is indigenous to Greece, Palestine and other parts of Syria, and if grown under cool treatment will bear several degrees of frost with impunity, but it is far from being hardy here.

We do not handle it, however, in its typical form; of late years great improvement has been wrought in this species and we now have distinct varietal strains, for instance, grandiflorum and giganteum, also decided varieties of these strains. And of recent years named varieties are being raised and disseminated by European specialists in the same way

as are roses or geraniums, only let us be thankful they are less numerous. During the last three years the Royal Horticultural Society of London awarded first class certificates to the following new sorts, namely, in 1887: Majesticum, Princess of Wales, Queen of Crimson and Royal Jubilee; in 1888, Floribundum compactum, Dixon Hartland and Lord Millington; and in 1889, Faust, Striatum and Striatum Empress of India.

Cyclamens are propagated from seed, and a good thing it is, seedlings usually come true to kind in variety and type. And the foundation of successful culture lies in the seed. Get good seed and of the very best strains obtainable, and don't use seed of a commonplace strain even if you get it gratis. If your aim is a multitude of blossoms on a plant get a superior strain of the Persicum, but if your object is large, bold blossoms for plucking, the giganteum section is the best. And these gigantesms also make handsome pot plants.

Compact, beautifully marked, clean, healthy foliage is also a desideratum and earnestly worked for by James, Odell, Wiggins and other noted English raisers.

Sow the seed as soon as you get it, be that fall, winter or spring, in shallow pans or flats and in a warm greenhouse. The seeds may be scattered about one half to one inch apart, pressed gently into the soil and covered over barely more than one eighth inch deep. And I have found that seeds two or three years old are good enough and germinate freely. In due time as the seedlings come up they should be pricked off, then potted singly and repotted as their advancing growth should warrant.

Fresh, fibrous, porous loam is a good soil to use; some growers add a little old finely rotted cow manure, while other growers omit manure of any kind in the soil, and apply it later in the way of fertilizing libations after the pots get well filled with roots. Be particular that the drainage is ample, clean and effective, and that there are no angle worms or grubs in the soil.

A winter temperature of 45° to 55° suits the cyclamen admirably, and it should occupy a place near the glass in a light airy house, but not in the way of any draft. While in active growth it requires liberal but careful waterings, and in the forenoons syringing to keep the foliage clean and healthy, but this syringing must be discontinued when the flowers begin to open.

After blooming it is well to keep the plants plump and green till they show a decided tendency to rest, then water less copiously. During the summer months or resting period I place the pots out of doors in a slightly shaded place where they are plunged in a bed of ashes in the open ground or a cold frame, and only give them water occasionally in prolonged dry weather. About August they will show signs of again starting to grow, then they had better be repotted and plunged again and allowed to come along slowly in order to secure good roots before rank leaves. As soon after this as we care to we may take them indoors.

Seedlings should be kept in active growth from the time they germinate till after their first blooming period. Plants two to three years old are generally in their strongest condition.

W. F.

Nehumbium Speciosum.

(Lotus of India.)

This is a stately and magnificent aquatic, which makes leaves thirty inches



GIANT CYCLAMENS

across, and flowers from eight to ten inches in diameter. The foliage is of a rich glaucous green, attaining a height of four to six feet; while a set of smaller leaves float on the surface of the water. The flowers, borne on strong stalks a foot above the tallest leaves, are white at the base, the upper portion of the petals being suffused and tipped with bright rose pink, appearing like huge tulips, and delightfully fragrant. Now that it has proved hardy in this country, at least nearly, if not quite, as far north as Bos-

ton; and as all that it requires in the way of cultivation, is to properly plant a good strong clump of it and allow it to grow, every pond in the country should contain a mass of it. Aside from historic interest, it is of great value for florists' use, the flowers lasting cut for about three days; and nothing is more charming than these arranged with water lilies and other aquatic plants and grasses. Where a pond or other natural water is not convenient, a half barrel or hogshhead may be sunk in the lawn; or a tank may be form-

ed by making an excavation a foot deep and simply cementing the bottom and sides, either of which would be enough for a fine specimen which would give many lovely blooms. In the fall the tub should be removed to the cellar or greenhouse, where the roots would be free from frost; or the tank should be emptied of water and covered with a foot or two of leaves and some boards. The plants winter better if the soil is kept damp, simply to keep the tubers from shriveling, rather than if covered with water. BENJ. GREY.

Common Flowers for Decoration Day.

BY WM. FALCONER.

Among 123 different species of trees and shrubs that are more or less in bloom with us this (May 30) day, perhaps not more than 20 or 25 are worth growing by the florist to supply cut flowers for Decoration Day. Furthermore it depends a good deal upon the lateness or earliness of the season and the weather what hardy flowers shall be in season on the 30th of May; again, a great deal depends upon locality, for instance, while here on Long Island our common and Persian lilacs were all past by the end of May, about Boston and many other places probably lilacs were then quite plentiful, so that at best notes on this subject are only suggestive.

Common rough flowers, such as those of trees, shrubs and hardy herbaceous plants, may not be the material florists would care to grow to dispose of to city florists, but rather what they might grow for part of their home retail trade, and as everybody wants flowers on Decoration Day it might be to the advantage of florists to cultivate an assortment of these hardy plants. And quantity goes a long way. Expensive roses, carnations, orchids and other tender flowers are choice and beautiful, but under a drying wind and withering sun they make very little mark in an open cemetery alongside of big bunches of snowballs and dentzias.

While white flowers are, upon this as upon other occasions, the most desirable, colored flowers are also admissible, so florists can make their own selection.

Among trees proper the most important are hawthorn, laburnum, horse chestnut, magnolia, flowering ash and wild cherry. Among hawthorns the double flowering white, double pink and Paul's double scarlet are the best; the common single white is a little past its best. But no matter how much choicer the double flowering forms may be to many, they have no fragrance, and for this reason the single flowered, which is delightfully fragrant, is preferred by others. As a tree by the wayside it thrives as well as a cultivated specimen in the garden. But hawthorns are often unsatisfactory, being subject to borers and fungoid diseases.

Yellow laburnums of several sorts are at their best, so too is the purple flowered kind, common horse chestnuts are past, but the red flowering one is still in fairly good condition, and the double flowering white one is at, or only a very little past, its best.

Magnolia Umbrella is at its best and the flowers are quite good; *M. cordata* is also in fine bloom, but the flowers are worthless for cutting; on *M. Soulangiana* and other hybrid forms a few scattering flowers may be had, but the early blooming species are all past. Magnolia hypoleuca and *M. parviflora*, a choice and deliciously fragrant, are in perfection, but too rare perhaps to be included among common flowers.

The blossoms of the flowering ash (*Fraxinus Ornus*, also the rarer *F. floribunda*) are in good condition, beautiful, airy, white and fragrant, but very deceiving, as they wilt so soon after being cut.

Prunus serotina, the wild cherry, has just begun to open, its greatest fault is its commonness and the haste with which its petals drop. All the forms of *P. Padus* are past. In groves and along the wayside the fragrant flowers of the locust are opening out; along the lanes and margins of woods the horizontal branches of *Cornus alternifolia* are laden with umbels of bursting buds, and in the woods

there are quantities of *Viburnum acerifolium* in blossom. Although ordinarily only a shrub, hereabout we have many specimens of the wild *Viburnum Opulus* that are 15 or more feet high, and they now are quite showy, being copiously furnished with broad white cymes.

In the way of shrubs, snowballs, dentzias, spiræas, weigelas, tamarix, Ghent azaleas and rhododendrons are in fine condition, and the most important of all. And first in excellence come the snowballs: *Viburnum rotundifolium* is in splendid bloom, white as snow and the branches are bent down with their load of blossoms. *Viburnum plicatum*, although three or four days later, is also now white, pure, perfect and in lavish profusion. I regard this species as the finest of all garden shrubs and indispensable to the gardener for the decoration of his home grounds, and the florist for cut flowers. Contemporaneous with *V. plicatum* is *V. Opulus sterilis*, the common American snowball, with its massive bunches gracefully arranged near the ends of the shoots; but while its blossoms are beautiful and elegant its foliage is always crinkled with insect vermin, a disfigurement never observed in *V. rotundifolium* or *plicatum*.

Dentzia gracilis is still in fine condition, although a day or two past its prime. It is indispensable. Its blooming period, however, is somewhat brief, and the petals of outdoor plants drop more readily than do those of indoor forced ones. *Dentzia parviflora*, another handsome species that has a good deal of a spiræa look about it, is also in full bloom, but though more fragrant it is not as showy, useful or profuse as is *D. gracilis*. The forms of *D. crenata* will not be in bloom for some time yet. *Neviensia Alabamensis* is likewise beautifully in bloom. Its white fleecy flowers when they are in their best condition are quite striking, and the plants are hardy enough, but there is something about this shrub that seems to preclude it from common use. Sometimes it blooms freely, in other seasons rather sparsely, and only when in its finest condition is it attractive at all, and a heavy shower destroys its blossoms.

Spiræa betulifolia, *S. trilobata* and its variety Van Houttei, and *S. Santoniensis* are in good bloom and useful in their way. And these include all the spiræas now in bloom that are worthmunch. The *S. betulifolia* appears in the trade lists under a good many different names, with no intent whatever to deceive, but merely because of an imperfect knowledge of the different kinds. The chief trouble with *S. trilobata* is, that when cut the flowers drop off very quickly; the Van Houttei which is a larger and whiter flowered form is a little better in this respect. The double and single forms of *S. Santoniensis* which are so glorious in the south are only imperfectly hardy here, hence we never get the splendid snowy wreaths of bloom the folks south of the Potomac enjoy.

No philadelphus is in bloom yet. (On June 1st, however, *P. coronarius* showed a good many open flowers.)

Diervilla (Weigela) *rosea* and *D. grandiflora* in variety are in their greatest glory, and the variegated leaved sort is as floriferous as any. The white-flowered *grandiflora* is in perfection; "hortensis nivea" only opening, and "candida" not out yet. The very dark colored one called Desboisi is only beginning to bloom. Although these weigelas are very beautiful as shrubs, as cut flowers they wilt too soon to be serviceable.

Tamarix Africana is a mist of pink spray. On open, dry sunny ground it is a day or two past its best, but on level moist land it is in perfection. Its color is a little too smoky, however.

The Ghent azaleas are in full bloom and what a splendid show! White, yellow, pink, flame and crimson in a host of shades, and the air is redolent with the delicious odor of the blossoms. They are beautiful among cut flowers. But warm winds and hot sunshine mar the flowers and the swarms of big, noisy bumble bees that continuously infest them destroy them very much.

The rhododendrons are beginning to open, but they won't be at their best for a week or ten days yet. The shades of bright and delicate rose and pink, and bright crimson and some of the spotted varieties are very beautiful and choice among cut flowers, but really among the purples we have many repugnant shades.

The Chinese Fringe tree (*Chionanthus retusus*) is in full bloom, white, airy and pretty, but not so bold or showy as our native fringe tree (*C. Virginica*) which will not be in full whiteness till about the 4th or 5th of June.

Rosa rugosa alba is in splendid bloom and has been so for some days; it is, this spring, the earliest of all our hardy roses. A few buds of the typical *R. rugosa*, also of *R. Kantschatica*, *R. Nutkana* and *R. alpina* varieties have also opened. This pronounced earliness of the white *rugosa* is not regular, however, for it often happens that the alpinas come in ahead, and oftentimes the red *rugosa* is as early as the white one.

Among lilacs the only ones that are now in good bloom are *Syringa villosa*, a beautiful rose-colored species from China, somewhat new in gardens, and *S. Josikera*, of the two, *villosa* is the more desirable one but not the latest to bloom. Such species as *S. Amurensis* and *S. japonica* will not be in flower for some time yet.

The common broom, *Cytisus scoparius* is still in very fine bloom, in fact, it is to-day the most showy yellow-flowering shrub in our grounds. *Cytisus nigricans*, however, is far neater in habit, and its blossoms are of a deeper golden yellow color and borne in terminal, erect racemes. It is a lovely little shrub and extremely copious. We imported half a dozen plants of it last year. In our order we failed to specify "on their own roots," so when we got the plants we found they had been "worked" on laburnum stems five feet high. This gives them a ridiculous, unnatural and most forbidding appearance alongside of the golden bushes, close on the ground, of our old plants upon their own roots. But yellow flowers are not esteemed for Decoration Day.

Woody vines contribute a fair quota of serviceable material: We have yet a good deal of fair racemes of both white and blue Chinese wistarias, but we cannot use them for anything as the bumble bees have completely disfigured them. The long racemes of the Japanese *W. multijuga*, however, later than the Chinese, are now in their finest condition and less troubled by the bees. The American (*W. frutescens*) is not in bloom yet.

The trumpet honeysuckle and its varieties are in bloom but worthless because their flower buds and young growth are so much infested with plant lice; later in the season when they shall be rid of the vermin we will get the good of them.

But grandest among all our vines is the clematis—the beautiful forms of the patens type. The flowers are large, showy, abundant, and very desirable.



A FIELD OF CALLAS IN CALIFORNIA

Hardy perennials also furnish a large proportion of the common flowers used for Decoration Day.

The Siberian *Paeonia tenuiflora*, single and double, is past, but we have a good many Montan or tree paeonias in good bloom, and both the pink and crimson old fashioned double flowered European paeonias are in perfection. None of the Chinese hybrids or varieties are in bloom yet, but in a few days they will be a beautiful show.

The fragrant *Iris Florentina* is nearly past, but the noble *I. pallida* is in fine condition, as are also lots of German risers. *Iris Sibirica* is in bloom wherever, like *Tridescantia Virginica*, it can establish itself as a weed, but its flowers are poor. The bulbous Spanish irises are also in bloom and quite desirable.

The pyrethrums are beautiful. The single varieties are in full bloom, but the doubles are only opening. And I raised all these singles a year ago from seed and now I can cut hundreds of daisies, large and bright and from the purest white and most delicate pink to the brightest crimson, and all are pretty and excellent for cutting.

We have lots of columbines of many sizes, shades and forms, and single and double. Though very good for garden decoration and not out of place as cut flowers for home use they are of little avail for cutting for traveling, they wilt too readily. How much superior are the elegant long spurred American sorts to the stiff short spurred kinds of the old world, also how much better are the true species than the hybrid progeny.

We have a sea of poppies, annual and perennial, all growing up and blooming together. Annuals of the Rheas, *Levigatum* and *umbrosum* types and from fall-started self-sown seedlings are now opening brilliantly, but none of the blue paeonia or somniferum varieties are out yet. Annuals sown this spring will not

be in bloom before the latter part of June or first of July. Although the varieties of *Papaver nudicaule* and *alpinum* are in good bloom they are not bulky enough to make much show among cut flowers. The perennial Oriental poppies on a warm sunny bank are beginning to open, but not for a week yet will they be out in all their vivid splendor. Poppy flowers if gathered as soon as open keep well for a couple of days, indeed there is more danger from wilting than from dropping their petals.

Perennial lupins grown on sandy land are quite showy and well worth cultivating. The prevailing color is blue, but white is also plentiful.

Salvia pratensis in all its varieties is in its heyday and although a vigorous hardy plant and copious bloomer, its cut flowers are not very satisfactory.

Heimerocallis Dumortieri is in fine bloom, it is the earliest of all, somewhat dwarf, and has a generous crop of orange-yellow flowers tinged with brown on the outside. The only other day lily in bloom is *Il. flava*, a showier and ranker species and of which only a few blossoms have yet expanded. Although *Anemone sylvestris* is in fair bloom and pretty in the garden it is barely copious enough for Decoration Day flowers. Gotten up in any quantity from seed.

Asphodelus luteus is very showy in the garden, hardy, free blooming and bold, but when we come to cut the spikes, between old flowers, fresh open flowers and unexpanded buds and swollen seed vessels all crowded together, I must say the spikes look a trifle shabby.

The double flowered ragged robin (*Lychnis Flue-en-culi*) is now common in many gardens, and although a little weedy perhaps, when cut it makes quite pretty bunches. The double *Lychnis Viscaria* is also plentiful and pretty. *Bonning Bet* (*Saponaria officinalis* fl. pl.) is hardly advanced enough for cutting.

The bold clumps of *Baptisia australis*, an excellent perennial with blue lupin-like flowers, afford us a large gathering. The *Fraxinella*, purple and white, is big, bushy and generous, but its flowers are sticky and unpleasantly odorous and always better looking growing on the plants than when cut. When *Vincetoxicum acuminatum* becomes better known it will be largely grown for white flowers; it is hardy, free growing, free blooming and easily propagated by division, and better still, it is insectivorous, its specialty being mosquitos. The Solomon's seals (*Polygonatum*) are in good bloom; the best forms of multiflorum and the Japanese *macranthum* are about as good as any. And if it were not for its great abundance wild in the woods about here I would also include *Smilacina racemosa*, which now is in fine bloom.

To these may be added biennial stocks that had been wintered in frames, 10-week stocks sown last February, double sweet alyssum, fall-sown snapdragons, Iberis Gibraltarica from cold frames, where also we yet have pansies, daisies and late forget-me-nots. And late tulips as *Gesneriana*, *carinata* and the like.

And we had quite a nicelot of ten roses. They were one year old plants grown in pots last summer, wintered in a cold frame and planted out in a warm sheltered place in April.

Glen Cove, N. Y., June 5.

Callas in California.

The accompanying engraving is from a photograph of a field of callas grown by the Central Park Floral Co., Los Angeles, Cal. There were at least 25,000 blooms on this field when the photograph was taken, May 10. The plants averaged about five feet in height and were grown from small sets planted eighteen months ago. How an eastern florist would like such a field to cut from at Easter time!

Epacris.

In old gardens in Europe epacris are much grown and esteemed both for conservatory decoration and cut flowers, but with us here they have not yet installed themselves so favorably. They are Australian woody plants, of dwarf growth and very amenable to pot culture, behaving well under the same cultural conditions as are accorded to soft wooded heaths like *Erica Wilmoreana* and *E. hyemalis*.

Some of the grand old gardeners around Boston, for instance, C. M. Atkinson, F. L. Harris, James Comley and D. Allan, grow epacris beautifully, and at the winter and spring meetings of the Mass. Hort. Society sprays of these antipodal beauties are often exhibited.

They are what we term cool house plants, that is plants that do not require a winter temperature of more than 45° or 50° or less than 35°. Grow them in pots seemingly small rather than over large, and be especially particular about the drainage that it is perfect, and made up of small potsherds rather than large rough ones. In Europe fibrous peat and sharp white sand is the usual compost employed for them, and sometimes a fourth part of loam is added. Here where we seldom have good fibrous peat we just use turfy fibrous loam chopped or rubbed fine, or with a little pounded charcoal added. In Europe the plants are continuously grown in pots and indoors except a little while in late summer when they are plunged in a bed of coal ashes out of doors for a couple of months to ripen up their wood. Here our method of procedure is different. Some growers keep them in pots all the year round, but plunge them out in early summer in a bed under a top shade of laths, but open on all sides; others turn the plants out of their pots and plant them right out as one would a carnation. When planted out they should be lifted and potted about the end of August or first of September, so as to get them well established in their pots before blooming time.

Some of our best growers use a lath shading over these plants in summer, others again insist that this is not only useless but detrimental. The splendid heaths grown by John Gardner, of Jobstown, N. J., are very well known by eastern florists, and Mr. G. assures me that his main point of success is setting them out in summer in an open well exposed situation where the winds from every direction can sweep around them freely and where he can hose them copiously. And so it is with epacris.

Epacris are propagated from cuttings of the current wood in the same way as are heaths, in a close frame in a greenhouse. A vital point is to wipe the inside of the sash dry every morning.

After blooming, the one year old shoots of the plants should be well shortened back so as to promote stockiness, for compact specimens only are salable as plants in bloom.

Epacris, being evergreen, should never be allowed to get dry, at the same time particularly avoid over watering, and the least indication of water logging in the case of potted plants should be remedied as soon as observed, so as to save the young roots which otherwise are apt to be killed.

There are two classes of epacris distinguished as early and late blooming; the early blooming ones come into flower between January and April, the late bloomers between March and June, according to kind and treatment. Best

among the earliest are *E. hyacinthiflora*, white, or its pink forms; *Mont Blanc*, white; *The Bride*, pearly white; *Vesuvius*, crimson; *Sunset*, reddish pink; and *Salmonica*, salmon. Prominent among the late blooming kinds are *Longiflora*, crimson tipped with white; *Longiflora splendens*, brighter than the typical form, and also *Eclipse*, bright red tipped with white.

The varieties shown in the engraving are: 1, *hyacinthiflora candidissima*, white; 2, *h. fulgens*, pink; 3, *ardentissima*, crimson; 4, *rubella*, bright red; 5, *Sunset*, reddish pink. W. F.



Cutting Down Chrysanthemums.

Far be it from me to unduly exult over a comparative universal recognition of the merits of the cutting down system, but it is only natural I should feel some degree of pride when I find that those who were opposed to, or could not agree with cutting down, now begin to see there is merit in it, and that the more it is practiced the greater the success of the cultivator. Although I have given every publicity to my system of dwarfing and grouping, every year I get numerous inquiries from the trade, gentlemen's gardeners and amateurs. I have answered many letters privately, but it is a matter of impossibility to answer all, and a few remarks in the *Garden* on the most important points to be observed may reach many inquirers. By practical experience I have proved and shown what can be done by the cutting down system, both for exhibition and home decoration, and the following are the most essential points:

The plants should now be well established in 4-inch or 6-inch pots and standing out of doors in a good open position. For cutting down in any district in the neighborhood or south of London the following dates would suit. On Friday, May 30, or Saturday, May 31, I should cut down the latest varieties to within 2 inches, 4 inches or 6 inches of the ground; about the following Tuesday I should cut down another batch; again on the following Saturday another still earlier batch; and on the following Wednesday or Thursday I should finish up with the earliest batch. That would bring us on to June 11 and 12, which would be right within a day or two, but no more license than that should be given. The first batch to be operated on would include *Princess Teck* and the various sports from that variety, *Boule d'Or*, *W. G. Drover*, *Pelican*, *Meg Merrilies*, *Ralph Brocklebank*, *Thunberg*, *Mr. D. B. Chapman*, *Grandiflorum*, *Duchess of Albany*, *Gloriosum*, etc. The next batch should include *Princess of Wales* and the various sports from that excellent variety, *Jardin des Plantes*, *John Salter*, *Barbara*, *Mr. Brunles*, *Baronne de Prailly*, *Japonaise*, *Mr. H. Cannell*, *Mrs. J. Wright*, *Mrs. Cannell*, *Belle Paule*, etc. The third batch should include the *Queen* section, *Mme. C. Audiguer*, *Edwin Molyneux*, *Mme. Laing*, *Florence Percy*, *Mme. Bertier Rendatler*, *Mons. John Laing*, *C. Orchard*, *Criterion*, *Lady Hardinge*, *Jeanne d'Arc*, *Venus*, *Refulgence*, etc. The last batch

should include the *Rundle* type, *Beverly*, *Mr. Bunn*, *Prince Alfred*, *Lord Wolsley*, *Mme. Lacroix*, *Elaine*, *Mons. W. Holmes*, *Mons. H. Jacotot*, *La Triomphante*, *Bouquet Fait*, *Wm. Robinson*, and others of the early flowering section.

After the plants had been cut down I should not put them under cover of any kind, as that would tend to weaken the young breaks; the more exposure the better; syringe and water as they require it. As they break, thin out the shoots, leaving three, four or five of the strongest. Repot into the flowering pots when the breaks are 2 inches or 3 inches long, and feed with liquid manure as soon as the roots are fairly established in the new soil. Eight-inch, 9-inch or 10-inch pots can be used, according to the variety and strength of the plant. Horn shavings or half-inch bones should be used with the broken crocks as drainage. The soil, in a good friable condition, neither too wet nor too dry, should be pressed very firmly around the ball. Keep well exposed as before and stake and tie out the young growths after they are well established. Secure the first flower bud that shows on the point by thinning out all side offshoots, leaving only the center bud. This should show about the first or second week in August; by that time the strength of the manure water can be increased, and it should be applied at every watering if the plants are strong and the pots full of roots as they should be by that date.—*C. Orchard, in London Garden.*

The Chrysanthemum.

[Extracts from a paper prepared by W. A. Manda and read before the Mass. Hort. Society, Boston.]

The genus *chrysanthemum* comprises nearly a hundred species. The one from which all the present varieties have been derived is supposed to be the *Chrysanthemum Indicum*, a rather inconspicuous single yellow flower. Through the zeal of indefatigable horticulturists this flower has attained almost the zenith of perfection.

The *chrysanthemums* at present in cultivation are divided into several classes, namely, the Chinese, Japanese, Anemone and Pompon. Each class is again subdivided into several others, and lately the hybrid varieties produced by intercrossing different types have brought forms that are hard to class in any particular group. Thus we have the Chinese incurved, Chinese reflexed, Japanese incurved and reflexed, Japanese anemone, pompon anemone, and so on. The aim of the raiser nowadays is to produce large flowering varieties; the substance, color, stem and habit of the plant seem to be secondary considerations. It is especially noticeable that while hundreds upon hundreds of new Japanese varieties have been raised every year, only very few of the Chinese class have been added, while the pompons are discarded and rarely met with.

When hybridizing, the principal object should be to improve upon the vigor and color of any varieties more than the mere size. A first class *chrysanthemum* should be of free growth, with stiff stems, the foliage clean and furnishing the stems up to the flower, while the flower itself should be of a good substance, well formed and of a pleasing color. The colors which are yet to be obtained, aside from the impossible blue, which I never expect to see, are a fine clear orange and clear bright red, which are wanted to brighten up our collections.

A great number of the leading varieties of *chrysanthemums* have been from time



EPACRIS.

to time imported from Japan, and when the hairy variety, Mrs. Alpheus Hardy, made its appearance it raised a sensation among chrysanthemum lovers, and we hope that variety may be a parent of quite a distinct class, although the seedlings raised from it have not yet produced any that were furnished with the glandu-

lar hairs which give to that variety its peculiar beauty. The majority of the chrysanthemums at present in cultivation have been raised in Europe, and of late years in America. Our country has started late, but has made up for the time lost, and at present the most valuable and esteemed varieties grown are

American kinds. The pioneers in this field were Dr. H. P. Walcott, John Thorpe, W. K. Harris and Arthur H. Fewkes, and lately there are quite a number of amateurs and florists who are raising new varieties every year.

A new variety should never be finally judged the first year, but must be grown

at least two seasons before it is well tested. Some of the most promising varieties have proven total failures the second year, while, on the other hand, many that have been condemned the first year have proven valuable when tried another season.

The hybridizing or cross-fertilizing of the chrysanthemum is a very uncertain work as regards results, owing to the mass of florets which are gathered in one single head. It is very hard to tell whether the floret has been fertilized with its own pollen or cross-fertilized with the pollen of another variety of the same class, but different color, through the agency of insects, especially bees, before the hand of the horticulturist has tried his own work on it; and it is for this reason that no raiser of chrysanthemums can say with any degree of certainty that any variety is a cross between such and such varieties, except when kept separate from all other varieties of the collection. In regard to the result it is also misleading; the colors of the supposed parents are sometimes never reproduced, and if you raise as many as fifty seedlings from the same head of flower you may get all colors, but none like the two parents.

In point of vigor of growth chrysanthemums vary considerably in various sections of the country, as well as in different seasons. Thus many of the varieties cultivated in England for exhibition can not be grown here with any success, and *vice versa*; while last year being exceptionally wet, none of the chrysanthemums planted out of doors did as well as usual. As to the various sections of this country, we find that in and around Philadelphia are grown the finest chrysanthemums in America. Some varieties also require different treatment from others; Mrs. A. Hardy, Crimson King, Belle Plante and others are very partial to excessive moisture. The same applies to pinching; some varieties if pinched late will not produce any flowers at all; such are grandiflora and others.

The culture of chrysanthemums is very simple when the cardinal points are well observed, namely, selecting strong, soft shoots for cuttings, and as soon as they are rooted never to allow them to suffer for want of root room or water, and after the buds are set to encourage them with liquid manure.

After the plants have done flowering, they should be cut down to about a foot from the ground and put in the cool house or a well ventilated frame. In January the offsets from the ground, and also from the stems or branches, will be from four to six inches long, when they should be cut and planted in sand, either in pots, boxes or the propagating bench; a south aspect and a temperature not above 55° by artificial heat are very essential. As soon as the cuttings have rooted they should be potted in 2-inch pots; from those they should be repotted in three weeks into 3 or 4-inch pots, and again when well rooted into 5 or 6-inch pots, by which time the first pinching takes place. After the plants are well established in the 5 or 6-inch pots they should be planted in their final quarters; if in pots, 10 to 12 inches is large enough to grow the best plants; if in benches or boxes, 4 inches of depth will suffice for the roots. Then comes the fixing of the plant to a neat stake, and tying it firmly, while pinching and pruning should not be neglected. The last pinching is done at the end of July, while the ground shoots are not allowed to grow, so that the whole strength may go into the main stem. When the buds are well set liquid

manure should be freely given, and attention should be given to the disbudding, as by leaving one bud to each twig you will have finer flowers, and the plants will also look better with fifty perfect blooms than with a hundred imperfect ones. When large specimen flowers are desired, not more than from four to six flowers should be left on each plant, so that this very limited number may have the benefit of the whole vigor of the plant. When standard plants are desired, the best way is to secure a strong shoot early in January, and leave it growing without stopping until it reaches the required height, when it should be pinched and treated in the same way as a bush plant. Planting out and potting in August may be practical, yet plants will suffer more or less by being lifted.

The place where chrysanthemums are grown should have all the light, sun and air from the time the cuttings are rooted until the time the cuttings are again ready to be cut. The soil that these plants seem to prefer is good turfy loam, well mixed with clay and enriched by ground bone, sheep manure or other manures or fertilizer.

Looking over the names of the thousands of varieties we find that a great many are not grown at all, while others could be dispensed with, and only those possessing the best qualities and distinctness should be kept.

Among the best old sorts we may count Alfred Salter, lilac pink; Brazen Shield, bronze color; Bronze Queen of England, Frank Wilcox, golden amber color; Golden Queen of England, yellow; Helen of Troy, deep rose; Hero of Stoke Newington, pink; Jardin des Plantes, golden yellow; Jeanne d'Arc, bluish white; Lord Wolseley, bronzy red; Miss Mary Morgan, pink; Prince Alfred, rose carmine; Venus, pink; Virginialis, white.

All the above are incurved, while among the multitude of the Japanese varieties those found to give the best results are Admiration, lilac; Bend d'Or, golden yellow; Ceres, white; Bras Rouge, dark crimson; Comte de Gerniny, nanken yellow; Duchesse, deep red; Ed. Andiguier, crimson maroon; Edwin Molynux; Elaine, white; Fantaska, coppery maroon; Gloriosum, yellow; Grandiflorum, yellow; Joseph Collins, coppery bronze; John Thorpe, deep lake; Marvel, white shaded; Mrs. G. Bullock, white; H. Cannell, Mrs. H. Waterer, white; Mrs. F. Thompson, white purple; Newport, rose; Pelican, white; Peter the Great, lemon yellow; Robert Bottomly, white; Robert Craig, pink; Sadie Martinot, yellow; Stars and Stripes, carmine; Superbe Flore, carmine rose; Thomas S. Ware, rose; Val d'Andorre, coppery bronze.

The reflexed are not so numerous but contain such varieties as Cullingfordii, brilliant crimson; Golden Christine, light yellow; Phœbus, yellow; Sam Sloan, pale bluish; President Hyde, rich yellow.

As the best anemone we may class Princess, delicate lilac; Thorpe, Jr., Mme. Cabrol, white; Bessie Pitcher, deep rose.

Those of late years' introduction that have proved superior to the already long list are Mrs. A. Hardy, white; Alaska, pearly white; Ramona, yellow; Adirondack, white; Monadnock, yellow; Narragansett, white; Mrs. de Witt Smith, white; Advance, pink; Avalanche, white; Excellent, rose; Belle Hickey, white; Belle Poiteatine, white; Colossal, pearly white; E. H. Fidler, yellow; Kioto, yellow; Capucine, vermilion; La Fortune, yellow; L. B. Dana, red; L. Canning, white; L. B. Bird, shrimp pink; Magicienne, chamois color; Mrs. W. K. Harris, yellow; Violet

Rose, rose; William H. Lincoln, yellow; Philippe Lacroix, rose; Snowball, white; Sunnyside, flesh color; Neesima, yellow; Mrs. Sam Houston, white; Mrs. Irving Clarke, pearly white; Mrs. Fottler, soft rose; Mme. Louise Le Roy, white; Miss Mary Wheeler, pearly white.

In naming chrysanthemums, the reform started by Dr. Walcott should be followed; that is, the names should be as short as possible, and certainly such names as Alaska, Shasta and Cortez are far preferable to such as our English or French competitors affix to their novelties; for example, Bronze Queen of England, Hero of Stoke Newington, Monsieur le Comte de Foucher de Cariel. By all means give us names that can be written on one label.

On the Rose and the Rose Plant Louse.

Conducted by CHARLES F. BAKER, Agricultural College P. O., Ingham Co., Mich.
Send specimens of unidentified insects and diseased plants to him at above address.

The Rose Plant Louse.

(*Siphonophora rosea*)

Among greenhouse pests, one that is troublesome to almost every florist, and one which is hard to deal with on account of its peculiar habits, is the rose plant louse, incorrectly called the greenfly. This insect belongs to the same family and genus as the wheat plant louse (*Siphonophora avenae*), which has created such great havoc in our grain crops during the last year.

If the lice live on outdoor plants the first eggs are deposited in autumn at the base of the buds. From these, there hatch, early the next spring, what are called agamic females, or females which produce their young without the intervention of the male. Between spring and fall there are a number of generations of agamic females, sometimes as many as eight or ten. One of the essentials in the production of these individuals seems to be a proper degree of warmth, so that when the cooler weather of autumn comes on, a generation of normal females is produced which lay eggs. It can be plainly seen that if the warm weather was indefinitely prolonged, there would be nothing but agamic females. This we find to be the case in the greenhouse, where a temperature resembling warm summer weather is maintained the year round. The rose plant louse is very prolific. It produces its young in large numbers and quite rapidly. Ream estimated that a single louse, in one summer or in five generations, might have six thousand million descendants. They congregate in large numbers on the leaves, tender shoots and flower stalks, and single individuals may be found on any part of an infested plant.

The agamic females (see fig. 1) are wingless, about one-eighth of an inch in length and of a shining green color. The antennae are as long or longer than the body, and the honey tubes are also long, reaching beyond the abdomen. The winged female has a shining black head and thorax, red eyes and a green abdomen, which bears fine black dots on each side just in front of the honey tubes. Behind the black dots are usually two short transverse black bands. The tail is yellow and hairy and the honey tubes black. The species is quite variable, a reddish variety often being found among the green. There is also a similar variation in color in the wheat plant louse during certain periods of its life, which

Dr. Fitch ascribes to a change of diet, from the coarser juices of the stalk and leaves, to the finer of the flowers. The variation is, however, probably due to the lice being parasitized. The rose plant louse, like other members of the same family, obtains its food by piercing the skin of the plant and sucking up the juices through its beak. When not in use this beak is folded under, between the front legs and against the breast.

Left unmolested, this louse is capable of doing a great deal of damage. It reproduces so rapidly that in a short time it will sap the vigor and vitality of any rose. A large number of remedies have been recommended and successfully used, but effectiveness is not the only thing to be considered. Ease of use, and time and cost of using must also be taken into account. Probably at the head of the list of remedies which are cheap, efficient and easily used, would come tobacco. This may be applied in three forms, an infusion, a powder, or smoke. To prepare the infusion, soak one pound of ones in six gallons of hot water to which one-half pound of size or soft soap has been added. The plants may be dipped in this or sprayed with it, but should be sprayed with clean water about twelve hours afterwards. This remedy should never be employed for plants having a wooly or hairy foliage. On account of the absence of odor, the powder is useful in conservatories. It should be applied by hand or by means of a bellows, when the plant is damp, and then cleaned off by a spray, in the same manner as when tobacco water is used. Mr. Peter Hen-

oil soap, and afterwards with clean water. A remedy which is not often tried by florists, but which is very effectual when used on any species of plant louse, is kerosene emulsion. This may be made as recommended for the carnation twister, in the *FLORIST* of April 1, 1890. It should be applied in the form of spray, and forcibly, so as to reach every louse. Repeating the application will soon reduce the lice to a minimum number. Other remedies which have been recommended, are quassia, soapsuds, fir-tree

louse. The egg hatches and the larva feeds on the substance of the louse, until nothing is left but the skin, when it pupates. It uses the old skin of its host for a pupa case, from which it escapes as a perfect insect in a very peculiar manner. The parasite of the wheat plant louse, leaves the louse by means of an opening on the back of the abdomen, made by breaking away a portion of the skin. In the case of the parasite of the rose plant louse (see fig. 2) the last two or three segments of the abdomen are broken away, except at one point on the lower side, thus forming a hinged lid which drops down, thus allowing the parasite to escape. It is very probable that this species has not been described. If it has not, an appropriate name for it would be *Ephedrus rosaphilus*.

Up to the present time the parasites have succeeded in almost entirely exterminating the lice. By looking very carefully over plants bearing the parasitized lice, the minute parasites can be seen flying about in considerable numbers. In a comparatively short time these little friends accomplished for us what we could not accomplish with any known remedy in the same time. It is therefore very evident that if the parasites are present and it is wished that they do their work in the most effectual manner, the greenhouse should not be fumigated. It would be expedient, however, to be very certain of the presence of the parasites before stopping the application of remedies.

May 27, 1890.

Spittle Insects.

A number of insects were lately received from a florist, who said they were injuring some imported plants, and that they



Fig. 2.

oil, Gishurst's compound, Fowler's insecticide, and Hurdman's beetle powder. No matter which is used, it should be applied thoroughly, and until the desired effect is produced. Mr. Peter Henderson says: "The main reason why remedies fail is owing to the fact that they are rarely long enough persisted in."

All insects have their enemies and the rose plant louse is no exception to the rule. These enemies include parasites on the insects themselves, birds, and lady-bird beetles. The beetles and birds devour the lice on outdoor plants only. The parasites attack them both in the open air and in the greenhouse, and belong to the hymenoptera, an order of insects which includes four winged parasites, ants, bees and wasps. It has been widely supposed that plants in the greenhouse were entirely at the mercy of the lice, or that being under cover prevented their enemies from reaching them. During the past winter roses in the greenhouses of the Michigan Agricultural College were affected by the rose plant louse. Towards spring large numbers were observed to swell up, turn black and die. Very small parasite hymenoptera were seen flying about the plants. They were not known to be connected in any way with the lice until some of them were hatched from the swollen and blackened bodies. These parasites (see fig. 3) belong to the genus *Ephedrus* of the family Braconidae and are characterized by a certain peculiar venation of the wings, by the joints of the abdomen being freely movable on each other and by the number of joints in the antennae. They are about two millimetres (.08 inches) in length. The head and thorax are black, the pedicel connecting the head and thorax, dirty yellow, and the abdomen dark brown above but lighter beneath. The legs are brown above and yellow beneath, though sometimes yellow all over. The antennae (see fig. 3) are cylindrical, eleven jointed and covered with fine short hairs. The first three joints are short, the fourth as long as the first three together, and the remainder, each about half as long as the fourth. In color, the antennae are black with the exception of the third joint and the base of the fourth, which are dirty yellow. By means of an ovipositor fitted for the purpose an egg is deposited by the parasite on or just under the skin of the



Fig. 1.

der son says: "In our new practice, every kind of plant that we know to be liable to be attacked by aphids, is dusted over with tobacco dust twice each week from June to October. Of course at such times as the roses or chrysanthemums are in flower, it must not be used, but these conditions only occur for a short season, and there is no necessity for the dust in winter, as then, fumigation with tobacco stems kills the aphids." To the practical florist the tobacco smoke is undoubtedly the best remedy for the rose plant louse. This should be used at night, and is generally made by putting the stems or dust on live coals. The next morning the house should be well ventilated and the plants thoroughly sprinkled. In the open air this remedy can be used by inverting a barrel over the plant, and placing a dish containing live coals and tobacco stems under it. In using this process care should be taken not to let the tobacco blaze. If repeated a number of times, this remedy is very effectual, the greatest objection to it being the unpleasant odor it leaves behind. On outdoor plants, before the buds begin to swell, eggs may be prevented from hatching by washing the plant with soft soap and water, or whale



Fig. 3.

lived under masses of froth. They were found to be true bugs of the family Ceropeidae, or frog hoppers, more commonly called spittle insects. During May and June the masses of froth are often seen on grass, spruce, in bunches of pine needles, and on various other plants. After the insect hatches from the egg it inserts its beak into the substance of the leaf and sucks up the sap. This is partly digested, the excess leaving the alimentary canal in the form of bubbles, which forms the froth. Under this it passes through all its transformations, and when the time arrives for the last moult the superficial part of the foam dries, so as to form a closed chamber about the insect. From this it escapes in the perfect form and wanders about on adjacent herbage and trees. Should they become numerous, their depredations would have the same effect on the plant as that of aphides or green flies. In such a case they can be easily subdued by the use of kerosene emulsion as recommended for the carnation twister in the *FLORIST* of April 1. This should be thoroughly and forcibly

applied, in the form of a spray. Fumigation with tobacco would probably not affect them as it does the greenfly, on account of their protecting cover of froth.

Naming Orchids.

The council of the Royal Horticultural Society have adopted the following rules for the naming of orchids for garden purposes:

Sec. I.—Genera, Species, well marked Varieties and Natural Hybrids.

1. The names of natural genera, species and well marked varieties, as well as of presumed wild hybrids, shall be written so as to accord with botanical language and usage, and to conform with the laws of botanical nomenclature (*Lois de la Nomenclature Botanique*) as adopted at the International Botanical Congress at Paris in 1867.

2. Exhibitors showing, for the first time, a plant under a Latin name shall be required to furnish the name of the botanist who has described the plant.

Sec. II.—Artificial Hybrids between Genera.

3. Every hybrid shall receive a generic name in Latin formed by combining the names of the parent genera and a specific name also in Latin, the sign of hybridity X being always added.

Sec. III.—Artificial Hybrids between Species.

4. Hybrids between species raised artificially shall be named in Latin, with the addition of the word *hybrids*, or of the sign of hybridity, X. (See par. 1.)

Sec. IV.—Artificial Crosses between Varieties.

5. Crosses between varieties raised artificially shall receive suitable vernacular names.

Sec. V.—General Recommendations.

6. The orchid committee shall decline to recognize any unauthorized name, or any name that is deemed unsuitable, or is not applied in conformity with the preceding rules.

7. A name once authoritatively adopted shall not be altered.

8. An award shall be made to any plant that is considered by the committee worthy of such distinction, even though it be unnamed, or not named in accordance with the preceding regulations, provided that, within a reasonable time, to be determined by the committee, a proper name be given. Any award made under these circumstances shall be suspended until the plant has been properly named.

9. The operation of these rules shall be prospective, not retrospective.

10. The council wishes to impress upon orchid growers the desirability of obtaining drawings or photographs of all new and certificated orchids, and of depositing such drawings in the library of the society for reference.

11. The council also desires to remind cultivators of the great importance of preserving specimens for future reference and comparison, and suggests that, wherever practicable, specimens should be sent for this purpose to the director of the Royal Gardens, Kew, England.—*London Garden.*

WE ALL HAVE OUR faults, and your business rivals have theirs; but don't forget that you are no exception to the rule. You have your good qualities, so have your business rivals. Look for these rather than the faults. You will not only be happier, but you will find that it pays.

AT A RECENT Boston wedding the bride stood, during the marriage ceremony, upon a mat of ferns and daisies.

SITUATIONS, WANTS, FOR SALE.

Advertisements under this head will be inserted at the rate of 10 cents a line (seven words) each insertion. Cash must accompany order. Back ads. not admitted under this head.

SITUATION WANTED—As rose grower and propagator, or as gardener in private family. Address J. D. RAYNOLDS, Riverside, Ill.

SITUATION WANTED—As rose grower and propagator of general florists' stock. Married. Address C. R. care American Florist, Chicago.

SITUATION WANTED—By a practical gardener and florist. Single; German. Long experience in all branches. Only a first-class private place wanted. Address FLOREST, P. O. Box 263, Marysville, Marshall Co., Kan.

SITUATION WANTED—By practical florist; 13 years' experience; good rose grower and propagator of fine stove and greenhouse plants. First-class cut flower grower in general. Young, single man; English. References. Address VANDA, High Bridge, New York City.

SITUATION WANTED—By a first class American gardener, age 28, married, one child; have had 10 years experience in the business and can take charge of either private or commercial place. Good references. Don't answer unless you can give fair salary. Address CONN, care American Florist.

SITUATION WANTED—A German, 30 years of age, 8 with 10 years' experience and 5 years in this country wishes a position as first or second foreman in a commercial place. I am at present time employed as propagator in one of the largest rose growing establishments in this country. Best of references from last two places on hand. Address E. B. care American Florist, Chicago.

WANTED—Good second-hand greenhouse pipe for hot water, 1½ or 2-inch—quantity depends on size. WILL AUSTIN, box 810, Geneseo, Ill.

WANTED—Competent plant grower, single man, as partner. Splendid location, one mile from Capitol; cheap rent, lease, greenhouses, sash, team, etc. furnished. Little money required. Address F. LAMBERT, 563 K St., N. W., Washington, D. C.

WANTED—A good first-class grower of roses, carnations, bulbs and tender plants for cut flowers, also a general stock of greenhouse and bedding plants. Must have good references; sober and industrious. Good wages paid. Address GEORGE A. HEINL, Toledo, Ohio.

WANTED—An active partner with some capital, in the most promising nursery in the South. Business established, with more work than one man can attend to. The best of references and open to the fullest investigation. Address Mr. HOYT, 18 Broadway, New York City.

WANTED—For commercial place, a good florist, must be good propagator, grower of plants, roses, cut flowers, bedding and vegetable plants for market, and make up designs and bouquets; state age, experience and references. Address M. BULL, Ft. Rouge Greenhouses, Winnipeg, Man.

FLORISTS address your catalogues to P. W. JOHNSON, Lakeview Conservatory, Birmingham, Ala.

FOR SALE—Weathered boiler No. 4, \$85, in good order, never fired hard. R. MANN & SON, Lansing, Mich.

FOR SALE—Greenhouse, with or without house and lot, doing good business, no opposition. Address Dr. TERRY, Hudson, Mich.

FOR SALE—Florist business; city 50,000 inhabitants. Splendid retail trade in and out of city. Well stocked and equipped. For reasons and particulars, address OHIO, care American Florist.

FOR SALE—Third or half interest in a well established and increasing business to experienced man only one who can pull off his coat with the present owner. Further particulars, address MEMPHIS FLORAL CO., Memphis, Tenn.

FOR SALE—Florist business in a lively town of 15,000 inhabitants, 5,500 feet of glass, beside the hotbed sashes, steam heat, city water; houses in good repair, and well stocked. Must be sold by July 15th. Address 585 South First Street, Stillwater, Minn.

FOR SALE—A well appointed wholesale floricultural establishment; 32,000 square ft. of ground, covered with glass, in a lively suburb of New York City. All cut flowers are sold on the premises to first-class retailers, and the demand exceeds the supply. Excellent reasons given for selling. Price, \$24,000, one-third cash, balance on hand and mortgage. For particulars, address

THOS. W. WEATHERS'S SONS, 46 and 48 Marion Street, New York City.

FOR SALE.

Astoria Nurseries, Astoria, N. Y. Having purchased the larger part of the stock of Wm. C. Wilson, and wishing to reduce same preparatory to moving to new location, offer bargains in all varieties of plants, heating apparatus and greenhouse structures also for sale.

PIPE AND BOILERS FOR SALE.

We still have left some Hitchens—4-in. diam., 9 ft. pipe at 30c. per foot; also 5 ft. pipe, 4-in. diam., at 7c. per ft., in good order. One Hitchens No. 17 and several Meters boilers cheap. Write for prices.

THE FLORAL EXCHANGE,

614 Chestnut St., Philadelphia, Pa.

THE OAKS ROSE NURSERIES

ROSES.

Meteor, Mme. Cusin, Perles, Niphetos, Mme. de Watteville, Brides, Papa Gontier, Mermets, Magna Charta, and Gen. Jacqueminot.

CARNATIONS.

Hinsdale, May Queen, Orient, Silver Spray, Paxton and Buttercup.

Strong healthy plants at lowest prices. Write for particulars.

JOHN H. TAYLOR,
BAYSIDE, L. I., N. Y.

YOUNG ROSES.

5000 PERLE DES JARDINS,

2500 PAPA GONTIER,

6000 CATHERINE MERMET,

1000 SOUVENIR DE WOOTTON,

5000 NIPHETOS,

1000 MME. CUSIN,

2000 SUNSET,

5000 LA FRANCE,

6000 THE BRIDE.

2½, 3 and 4-inch pots; A No. 1 plants, in healthy condition.

WRITE FOR PRICES.

THE B. A. ELLIOTT CO.,
PITTSBURG, PA.

THE AMERICAN FLORIST

Subscription \$1.00 a year. To Europe, \$1.50.

Advertisements, 10 Cents a Line, Agate;
Inch, \$1.40; Column, \$14.00.
Cash with Order.

No Special Position Guaranteed,
Discounts, 3 months, 5 per cent; 6 months, 10 per
cent; 12 months, 20 per cent.

No reduction made for large space.

The Advertising Department of the AMERICAN
FLORIST is for Florists, Seedsmen, and dealers in
wares pertaining to those lines ONLY. Please to
remember it.

Orders for less than one-half inch space not accepted.

Advertisements for July last issue must
REACH US by noon, June 25. Address

THE AMERICAN FLORIST CO., Chicago.

COMMERCIAL RATINGS.

Under the head of "A Suggestion" in another column Mr. Copeland calls attention to the desirability of a "blue book" giving the financial standing of each one in the trade. The idea is not new. Quite a number suggested, to us while we were compiling the last edition of our trade directory that a valuable feature could be added to the book by giving a rating on each firm or individual. Very true indeed, but is the trade yet prepared to pay what such service would cost? We feel assured that it is not.

A rating to be of any value whatever must be accurate, and to secure reliable information regarding the actual financial standing of each one in the trade, scattered as they are over this vast country would cost a very considerable sum. Reports filled out by the individuals themselves would be absolutely worthless, and worse than none in the cases where accurate information is especially desired. And information obtained from business rivals would be unjust in many cases. The only proper way would be to follow the methods employed by the commercial agencies—employ a competent attorney in each city and town to ascertain the financial responsibility of each one in the trade in his locality, examining the records of the county to learn in whom the titles rest and whether there are any encumbrances upon the property, etc. Then the book should be published annually at least, and the services of the attorneys retained to report as they occurred any changes during the year.

This would cost the trademore than to make use of the services of the existing commercial agencies. They as yet do not list many of the florists, but special reports can generally be secured through them, and probably if the matter was presented in such a way as to convince them that there was a sufficient demand for a special list of ratings on florists, nurserymen and seedsmen only, they would undertake to prepare such a list, which with the facilities they have at command they could compile at much less expense than could any one not possessing such advantages. If those willing to pay a fair price for such service will report to us, and the number is sufficient to make a respectable list, we will submit the case to the commercial agencies and see what can be done.

COLOR.

No thoughtful man will fail to admit that the nomenclature of colors is in an almost hopeless jumble. If any evidence were wanted a reference to the florists' and seedsmen's catalogues would supply it in appalling abundance, for except in the cases where descriptions have been

copied from one catalogue into another each writer of the description has seen a different color; in some cases varying widely and in others slightly, but still different.

That some authoritative standard is needed was the first thought in connection with this matter, but a careful search revealed the fact that none existed. The second thought was a bold one—if there is no standard, then let us establish one. The difficulties were numerous, but we have made some progress and hope within the coming year to present a code or chart of colors which may be the standard for florists at least. About a year ago we commissioned Mr. H. H. Battles, of Philadelphia—who is both a florist and an artist—to prepare a chart of colors, conforming as nearly as possible to the prevailing popular feeling in their nomenclature. He obtained all existing works on the subject, classified thousands of samples of fabrics and other colored objects with the names given the various shades of color by the manufacturers and the public, consulted artists and experts and will crystallize the results of his labors in a chart of colors giving the typical primary colors with the various shades most commonly employed in descriptions, particularly in the descriptions of flowers. This we hope to be able to present to our readers in the form of a colored lithograph and as a supplement to the paper. The expense will be heavy, but we believe that the benefit will be so great as to warrant the expense.

THE NURSERYMEN AT NEW YORK.

The American Association of Nurserymen which convened at New York City June 4, held a very successful and a representative meeting. The weather, for the season, was almost too warm, but the hall was a cool and very quiet one, with ample accommodations for the business sessions, and the hotel arrangements left nothing to be desired. The usual three sessions per day proved so monotonous that the attendance was straggling many times. We feel sure they would profit much by adopting the two session plan now followed by the Society of American Florists as adopted at their Buffalo meeting. The competition by foreign nursery agents was somewhat bitterly complained of, but practical suggestions for relief, outside of the 20 per cent advance in the present tariff bill, were not made. Combinations of largest growers of general stock looking towards fair uniform trade prices were talked of, but resulted—publicly at least—in nothing but talk.

That old question of low prices with the same story of depression in trade and consequent hard times, was not the least important matter discussed by the nurserymen at their New York meeting. President-elect Emery, of Minnesota, provided a little food for thought when he remarked in substance: "We have a homely but expressive saying out west 'God Almighty hates a coward.' Now if growers will ask a fair full price for their nursery stock of whatever kind, and provide a first class article, they will sell it, but if they haven't the courage to hold to their convictions and maintain those prices which they *know* they must have to pay a living profit, then they must suffer the consequences." Is there any reflection for the florist here?

AN EUROPEAN rosarian thinks that Rosa laxa will make a stock which will be valuable for use in the American climate on account of its being indigenous to Central

Asia and very hardy. It is also claimed that it never forms any suckers, and that roses budded on this stock take very easily and join firmly, never falling off as sometimes happens with the Manetti. We should be glad to hear from any American growers who may have used this stock.

THE ILLUSTRATIONS of giant cyclamens and epacris which appear in this issue were engraved from colored plates published in the *Revue de l'Horticulture* Belge of Ghent, Belgium, as was also that of Eichhornia crassipes which appeared in last issue. Our illustrations of tuberous begonias and gloxinias in recent issues were engraved from colored plates published in *L'illustration Horticole*, Brussels, Belgium.

THE Buchanan Manufacturing Co. send us a sample of their "fruit and berry picker" which they request us try "for picking off roses or twigs." The picker is worn on the thumb and is provided with a cutting tool shaped much like the nail of the thumb. It is simple and inexpensive and we have no doubt will be found useful to the florist in the operations of pinching back plants and picking flowers.

MR. E. G. BROWN, Hamilton, Ont., sends up a photograph of a calla bloom having two spathe, the outer one being fourteen inches in length and shaped very much like a leaf though pure white. Of no further interest than other abnormal developments of the calla which have frequently been noted in these columns.

AT A RECENT charity fair in New York Mrs. Grover Cleveland presided over the flower booth and the customers for her roses, which were held at from \$5 to \$10 each, were so numerous that it was necessary to form a line. Talk about the high prices charged by florists is no longer in order from the daily press.

"THE FAIRLAND OF FLOWERS, a popular illustrated botany for the home and school," by Mara L. Pratt, is a quarto of 154 pages, of which a copy has been received from the Educational Publishing Co., Boston. It is designed for the youngest pupils, and as such may be useful.

A MAMMOTH VERBENA.—Mr. John F. Rupp writes us that one of his mammoth verberna plants has borne flowers as large as a silver half dollar and desires to know whether any other florist has succeeded in growing flowers of such size. He considers it "quite a monstrous freak."

MRS. CLEVELAND is the name given a seedling H. P. rose by E. Gill, Oakland, Cal., the raiser. It is described as being of dwarf habit, very free blooming, the flowers of great substance and resembling Jacquin color.

"THE RAINBOW" ROSE, a sport from Papa Gontier, was exhibited at the recent flower show at San Francisco and the local papers print many eulogistic notices of it.

Catalogues Received.

Geo. Creighton, New Hamburg, N. Y., carnations; J. J. Van Loghem, Haarlem, Holland, Dutch bulbs; Laurent Carle, Montplaisir, Lyon, France, carnations; Dammann & Co., San Giovanni a Teduccio, Italy, bulbs and orchids; Osman & Co., London, England, nurserymen, seedsmen and florists' requisites.

St. Louis.—May 26 a banquet was given at the Southern Hotel by the trustees of Shaw's Garden in consequence of the following clause in the will of Henry Shaw: "I hereby bequeath one thousand (\$1,000) dollars annually for a banquet to the trustees of the garden, and to the guests they may invite, literary and scientific men, and friends and patrons of the natural sciences; to be paid each year out of the funds derived for the support of the garden; also \$400 annually from the same fund for a banquet to the gardeners of the institution and invited florists, nurserymen and market gardeners of St. Louis and vicinity, said banquet to be presided over by the director of said botanical garden." This was the first banquet given by the trustees and was an elegant affair.

THOS. YOUNG, JR.,
WHOLESALE FLORIST
 20 West 24th Street,
NEW YORK.

LILY OF THE VALLEY,
 And the Choicest **ROSES** for the
 fall and winter season.
W. S. ALLEN,

WHOLESALE DEALER IN CUT FLOWERS,
 36 EAST 23rd STREET, NEW YORK.
 ESTABLISHED 1877.
 Price List sent upon application.

W. F. SHERIDAN,
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 No. 32 W. 30TH ST., NEW YORK.
 Orders to be shipped will receive prompt attention.

EDWARD C. HORAN,
WHOLESALE FLORIST,
 34 WEST 29TH STREET,
 The Bride, Mornet,
 and Ann Beauties,
SPECIALTIES. **NEW YORK**

ROSS & MILLANG,
WHOLESALE FLORISTS,
 No. 1168 Broadway,
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CUT FLOWERS,
 51 West 30th St., **NEW YORK.**

W. A. JURGENS,
WHOLESALE FLORIST
 27 Union Square, **NEW YORK.**

DIRECTORY.
 Every Florist, Nurseryman and
 Seedsman should have one.
AMERICAN FLORIST CO., Chicago.

©Wholesale Markets.

Cut Flowers.

	BOSTON, June 10.
Roses, Ven.....	\$1.00 @ \$2.00
" Fancy.....	5.00 @ 5.00
" Jacus.....	5.00 @ 12.00
Carnations.....	1.00 @ 2.00
Valley.....	4.00
Smilax.....	20.00
Adiantum.....	1.50
Asparagus.....	50.00
	PHILADELPHIA, June 10.
Roses, Hybrid.....	4.00
" Beauties.....	5.00 @ 12.00
" Mornets, Brides.....	5.00 @ 5.00
" La France.....	5.00
" Perles, Niphetos, Chins.....	3.00
" Woottons.....	4.00
Carnations, long.....	1.00
Carnations, short.....	1.00
Gardenias.....	6.00
Smilax.....	20.00
Adiantum.....	1.00
	NEW YORK, June 10.
Roses, Bon Silence.....	\$1.00 @ \$2.00
" Gontiers.....	2.00 @ 3.00
" Perles, Niphetos, Sunsets.....	2.00 @ 5.00
" Mornets, Brides.....	5.00 @ 5.00
" Vatteville, Cashin.....	5.00 @ 5.00
" Bennetts.....	4.00 @ 6.00
" La France.....	5.00 @ 15.00
" Albany, Hostes.....	5.00 @ 25.00
" Beauties.....	10.00 @ 15.00
" Hybrid.....	5.00 @ 25.00
Smilax.....	1.50 @ 2.00
Carnations, long.....	1.00 @ 1.00
Mignonette.....	2.00 @ 4.00
Valley.....	2.00 @ 4.00
Adiantum.....	1.50
	CHICAGO, June 12.
Roses, Perles, Niphetos.....	\$4.00 @ \$5.00
" Gontiers.....	2.00 @ 4.00
" Bon Silence.....	1.50 @ 2.00
" Mornets, La France.....	5.00 @ 6.00
" Brides.....	6.00 @ 7.00
" Ann, Beauties.....	8.00 @ 10.00
" Jacus.....	8.00 @ 10.00
" Bennetts, Dukes.....	25.00 @ 3.00
Carnations, short.....	1.00 @ 1.50
Carnations, long.....	2.00 @ 3.00
Carnations, long, fancy.....	4.00 @ 15.00
Smilax.....	10.00 @ 20.00
Valley.....	2.00 @ 4.00
Thiresses.....	1.00 @ 2.00
Violets.....	.75
Paeonies.....	.50
Peonies.....	4.00 @ 6.00

WM. J. STEWART,
Cut Flowers & Florists' Supplies

—WHOLESALE—
 67 BROMFIELD ST., BOSTON, MASS.
GEO. MULLEN,
WHOLESALE FLORIST.
 Florists' Supplies Always in Stock.
 17 CHAPMAN PLACE,
 (Off School St., near Parker House),
BOSTON, MASS.
 Orders by Mail, Telegraph, Telephone or Express
 promptly filled.

WELCH BROS.,
WHOLESALE FLORISTS.
 165 Tremont Street, BOSTON, MASS.
 We make a specialty of shipping choice Roses and
 other flowers, carefully packed, to all points in
 Western and Middle States.
 Return Telegram is sent immediately when it
 is impossible to fill your order.

N. F. MCCARTHY & CO.
WHOLESALE FLORISTS
AND JOBBERS IN FLORISTS' SUPPLIES,
 1 Music Hall Place, BOSTON, MASS.
 Also entrance from Hamilton Place
 through Music Hall.

We keep a large supply of Fancies and Carna-
 tions always on hand. Return telegrams sent
 immediately when unable to fill orders.

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C. STRAUSS & CO.
 Telephones 977 and 999.
WASHINGTON, D. C.

ROSE BUOS IN ANY QUANTITY SHIPPED;
ON TELEGRAPHIC ORDERS,

E. H. HUNT,
 79 LAKE STREET, CHICAGO,
 Successor to
VAUGHAN'S
CUT FLOWER DEP'T.

Our stock is cut with special reference to ship-
 ping trade, which comprises the greater part of
 our business. We therefore claim that we are
 better prepared to attend to the wants of FLOWER
 BUYERS, outside of Chicago, than any house in
 the West.

OPEN DAILY: (Week days till 9 P. M.
 Sundays till 2 P. M.)

KENNICOTT BROS.,
WHOLESALE FLORISTS,
 27 Washington Street, CHICAGO.

We always have choice, Fresh Cut Flowers in sea-
 son. The best packers in the trade. Orders prompt-
 ly shipped. Store open until 9 P. M. Sundays un-
 til 2 P. M.

WIRE WORK A SPECIALTY.
 Extra designs made to order. Write for price list.
 Consignments Solicited, Telephone 465.

CHAS. H. FISK,
Wholesale Florist
AND DEALER IN
FLORISTS' SUPPLIES,
 116 Dearborn Street,
CHICAGO,
Store Open Day and Night.

I keep a full stock of
WIRE DESIGNS
 of superior workmanship and at lowest prices. Ex-
 tra pieces of any description made to order on short-
 est notice. Send for Catalogue.
 Mention American Florist.

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CUT FLOWERS
And Florists' Supplies.
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 Consignments Solicited. Special attention paid to
 shipping. Mention AMERICAN FLORIST.

CHAS. E. PENNOCK,
WHOLESALE FLORIST
 38 So. 16th Street, Philadelphia, Pa.

JOHN M. HUDSON,
WHOLESALE
Commission Dealer in Cut Flowers,
 1225 Market St., ST. LOUIS, MO.

Quick sales and prompt returns guaran-
 teed. Consignments solicited.

CUT FLOWERS
 The choicest Cut Flowers at lowest market rates;
 shipped C. O. D. Telephone connection. Use A. P.
 Code when ordering by telegraph. For prices, etc.
 Address,
J. L. DILLON, BLOOMSBURG, PA.

On the Seed Trade.

SEED TRADE ASSOCIATION.

ALBERT M. McCULLOUGH, Cincinnati, president; JOHN FOTTLER, Jr., Boston, secretary and treasurer. The ninth annual meeting at Cincinnati, June, 1891.

American Seed Trade Association.

The eighth annual meeting of the American Seed Trade Association was held at Saratoga Springs, N. Y., June 10-11.

In addition to the usual routine business a committee was appointed to go at once to Washington for tariff consultation.

Mr. Albert McCullough, of Cincinnati, was elected president, and Mr. John Fottler, Jr., of Boston, secretary.

The next meeting of the association will be held at Cincinnati, O., June, 1891.

W. A. Eschbeck mortgagee's agent representing Ephraim Everitt (\$1100) and A. C. Nellis (\$183.37) is now in charge of the business of J. A. Everitt & Co. at Indianapolis. They report assets, stock and book accounts (no mention made of lists of customers' names) \$1,400; liabilities, \$5,000 to \$6,000. Talk is made of paying 25 cents on the dollar.

Steam Heating.

In answer to J. C. S. would say we would not use high-pressure at any cost. Low-pressure will do the work required with not exceeding five pounds pressure. The water level of the boiler must be one and one-half or two feet lower than the lowest point of the circulating pipes.

CARPENTER FLORAL CO.

Atlanta, Ga.

Coming Exhibitions.

June 24-25, Boston.—Rose and strawberry exhibition Mass. Hort. Society.

August 19-22, Boston.—Annual exhibition Mass. Hort. Society.

October 28-Nov. 1, Atlanta, Ga.—Chrysanthemum show, Piedmont Exposition Co.

November 4-6, Orange, N. J.—Chrysanthemum show, New Jersey Floricultural Society.

November 4-6, London, Ont.—Chrysanthemum show, Forest City Florists' and Gardeners' Society.

November 4-7, Chicago.—Chrysanthemum show, Chicago Florist Club.

November 4-7, Erie, Pa.—Chrysanthemum show, Erie Chrysanthemum Club.

November 10-14, Philadelphia.—Chrysanthemum show, Penna. Hort. Society.

November 11-13, Boston.—Chrysanthemum show, Mass. Hort. Society.

November 11-13, Montreal, Canada.—Fall show Montreal Gardeners' and Florists' Club.

November 11-15, Cincinnati.—Chrysanthemum show, Cincinnati Florist Club.

November 11-15, Indianapolis.—Chrysanthemum show, Society of Indiana Florists.

November 12-13, Worcester, Mass.—Chrysanthemum show, Worcester County Hort. Society.

Hardiness of Nelumbium Speciosum.

I would like to have the opinion of cultivators of aquatics as to the hardiness of Nelumbium speciosum. In his catalogue Mr. E. D. Sturtevant says the plant is hardy and classes it with his hardy aquatics, while on the other hand Messrs. Siebrecht & Wadley say it is not hardy.

I would be glad to know which is correct, and believe there are others who would like to have the facts. I do not doubt the truthfulness of either of the gentlemen named, but it may be that they have cultivated this plant under different conditions. Let us hear from other cultivators. LETTA SPENCER.

Hudson, Mich.

The Boston Convention.

Following is a list of Boston hotels at which arrangements have been made for delegates to the coming convention of the Society of American Florists. It is arranged according to distance from the convention hall, beginning with the nearest:

NORTHWARD FROM HORTICULTURAL HALL.				
Name and location.	Distance from Hall.	per day.		
Tremont House, Headquarters.				
Tremont St.	opposite	\$3.00-5.00		
Parker House.				
School St.	1 sqr.	1.00-3.00		
St. Nicholas Hotel.				
Province St.	1/2 "	.75 1.00		
Boston Tavern (gents only).				
Washington St.	1 "	1.00 2.00		
Sherman House.				
Court Square	1 1/2 "	.75-2.00		
Young's Hotel.				
Washington St. & Court Sq.	2 "	1.00-3.00		
Crawford House.				
Scoville Square	3 "	1.00-2.00		
Quincy House.				
Brattle St.	3 "	2.50 3.00		
American House.				
Hanover St.	4 "	2.50		
Revere House.				
Lowdown Square	1/2 mile	.75 1.50		
SOUTHWARD FROM HORT. HALL.				
Adams House.				
Washington St.	4 sqrs.	3.00		
Hotel Reynolds.				
Washington St.	4 "	3.00		
Vieth's Hotel.				
Tremont St.	5 "	1.00-2.00		
United States Hotel.	1/2 mile	1.00		
Bech St.		2.50-3.00		
Hotel Brunswick.				
Boylston St.	1 1/2 "	3.50-5.00		
Hotel Vendome.				
Commonwealth Ave.	1 1/2 "	3.50-5.00		
* American plan. † European plan.				

Rooms may be engaged now on application to any member of the committee on hotel accommodation. The committee is as follows: Wm. J. Stewart, 67 Bromfield street, Boston; M. H. Norton, Berkeley street, Boston; P. Welch, 165 Tremont street, Boston; J. Frank Curtis, Newtonville, Mass.; J. J. Cunningham, Readville, Mass.

Florists' Club Directory.

Florists' Club of Philadelphia:
Robert Craig, Pres., 460 Market St.
H. F. Mitchell, Sec'y, 714 Chestnut St.

Gardeners' and Florists' Club of Boston:
A. P. Calder, Pres., Boylston and Tremont Sts.
Jas. J. Cunningham, Sec'y, Roslindale, Mass.

New York Florists' Club:
John H. Taylor, Pres., Bayside, L. I.
W. S. Allen, Sec'y, 35 East 23rd St., New York.

Chicago Florists' Club:
James D. Raynolds, Pres., Riverside, Ill.
G. L. Grant, Sec'y, 54 La Salle St., Chicago.

Baltimore Florists' Club:
Wm. McKelvey, Pres., Govanstown, Md.
Henry Bauer, Sec'y, 1875 Gay St., Baltimore.

Society of Indiana Florists:
M. A. Hunt, Pres., Terre Haute.
Wm. G. Bertermann, Sec'y, Indianapolis.

Cincinnati Florists' Club:
C. L. Mitchell, Pres., box 188.
W. C. No'an, Sec'y, Myrtle Ave.

Valley of Ottawa Gardeners and Florists' Club:
James Sorley, Pres., Ottawa, Ont.
N. Robertson, Sec'y, Ottawa, Ont.

St. Paul Florists' Club:
A. H. Runde, Pres., 406 East Seventh St.
Louis Venke, Sec'y, 131 East Sixth St.

Florists' Club of Washington, D. C.:
Robt. Bowdler, Pres., 460 Central Market.
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Toronto, Ont., Gardeners and Florists' Club:
John Chambers, Pres.
Jno. Dunlop, Sec'y.

Wisconsin Gardeners and Florists' Club:
G. W. Ringrose, Pres., Wauwatosa, Wis.
J. M. Crowley, Sec'y, 133 Mason St., Milwaukee.

Florists' and Gardeners' Club of London, Ont.:
A. R. Murdoch, Pres.
Wm. Gamage, Sec'y.

Florists' and Gardeners' Club of Montreal, Quebec:
John Doyle, Pres., Head of DuRocher St.
W. Wilshe, Sec'y, 4 Park Ave.

Gardeners and Florists' Club of New Bedford, Mass.:
Wm. Keith, Pres.
Geo. C. Bliss, Sec'y.

Society of Minnesota Florists:
E. Nager, Pres., Minneapolis.
Gust Malmquist, Sec'y, Minneapolis.

Buffalo Florists' Club:
Wm. Scott, Pres., 479 Main St.
D. B. Long, Sec'y, 457 Main St.

Indianapolis Florists' Club:
Wm. Langstaff, Pres., 26 McKim Ave.
John Hartje, Sec'y, 124 E. St. Joe St.

Florists' Club of Utica, N. Y.:
Jonathan Aucock, Pres.
W. J. Crowe, Sec'y.

St. Louis Florists' Club:
J. M. Johnson, Pres., 796 Olive St.
S. Kehrbaum, Sec'y, 21 S. Broadway.

DOUBLE PHLOX DRUMMONDI.—Messrs. Nantz & Neuner, Louisville, Ky., send us a few semi-double blooms of Drummond's phlox of a crimson shade.

ORCHIDS. ORCHIDS.

June 19th. THURSDAY, June 19th.

An important sale of Orchids will take place on Thursday, June 19th, at the Salesrooms of Messrs. Robert B. Young & Co., 205 Greenwich Street, New York, from Mr. FREDERICK MAU. The sale will include the choicest and rarest varieties from his collection, which he will sell on account of removal. Amongst them will be found *Cattleya Bogotensis alba, true*; *C. Trianae alba, true*; *Laelia elegans grandiflora*; *Odontoglossum Spatacenn*; also fine collection of 35 distinct vars. of *C. Trianae*. At the same time will be offered a grand lot of fresh imported *Cattleya Mossiae*, *C. Speciosissima* and the old favorite *Cattleya Trianae*. Plants are in the best possible condition, and guaranteed *true* to name.

Also a collection from I. Forstermann, Newtown, L. I., which will include *Vanda Amesiana*, *V. Kimballiana*, *V. cœrulea*, *V. suavis*, *Laelia anceps alba, TRUE*; *Cypripedium Spicerianum*, specimen plant; *Cyp. nitens*; *Cyp. Ashburtonæ*, and *Cyp. Venantum*. Catalogue on application.

ROBT. B. YOUNG, AUCTIONEER.

AMERICAN FRIENDS

OFTEN WAIT TOO LONG in sending their orders for Holland Bulbs. Please to send your orders as soon as possible.

References as to Quality of our Bulbs, Etc., to several UNITED STATES FLORISTS and SEEDSMEN.

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SEGERS BROTHERS,
WHOLESALE BULB GROWERS,
LISSE, near Haarlem, HOLLAND.



FORCING BULBS of TRUE STOCKS
in CHOICE QUALITY is of any importance to you, write to us.

POLMAN MOOY,
BULB GROWER,
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ALL
THE BEST TULIPS,
THE BEST HYACINTHS,
THE BEST DAFFODILS.

If you do not Import direct we will refer you to the Seedsmen who import from us

HOLLAND* BULBS.

BEFORE PLACING YOUR ORDER
BE SURE TO WRITE TO

C. H. C. MACHEN & SONS,

Wholesale Bulb Growers,
WARMOND, HOLLAND, EUROPE.

Catalogue, which is now ready, sent on application.

HULSEBOSCH BROS.,
—GROWERS OF—

DUTCH BULBS, FLOWER ROOTS & PLANTS
OVERVEEN, near Haarlem, HOLLAND.

Offer to the Trade as usual all kinds of the best
Hyacinths, Tulips, Crocus, Lilies
Narcissus, Roses, Azaleas,
Rhododendrons, &c., &c.

Catalogues free on application to

A. HULSEBOSCH,
P. O. Box 3118, NEW YORK CITY.
Mention American Florist.

J. A. DE VEER,
18 BURLING SLIP, NEW YORK.

Offers the Finest Stock of DUTCH BULBS, ROMAN HYACINTHS, PAPER WHITE NARCISSUS, LILIAM CANDIDUM and HARRISII, LILY OF THE VALLEY, FREESIAS, CALLAS, and other desirable

FORCING BULBS FOR FALL DELIVERY.

Also prime **Seeds, Nursery Stock**, such as Roses, Azaleas, Camellias, Rhododendrons, etc., from leading growers in France, Belgium, Holland and Germany.

A full line of **METAL WREATHS AND CROSSES**, either plain or ornamented, loose **PORCELAIN FLOWERS** on wire stems, for making up designs, choice **CAPE FLOWERS, PAMPAS PLUMES, IMMORTELLAS** and other Supplies, **AT LOWEST PRICES.**

For fresh **PALM SEEDS, CYCAS REVOLUTA STUMPS, SUMMER FLOWERING BULBS**, see ad. June 1st.

Special Catalogues free to applicants. Estimates cheerfully submitted. Satisfaction Guaranteed.

TREMENDOUS REDUCTION
IN PRICES OF

ROMAN HYACINTHS, PAPER WHITE NARCISSUS, FREESIAS, LILIAM CANDIDUM, AND OTHER FRENCH BULBS
For early Fall Importation.

Write for **WHOLESALE IMPORT PRICES**, also of German Lily of the Valley Pips, Lilium Harrisii, Tuberose, AZALEA INDICA, PALMS, DRACAENAS, Etc., Etc.

WHOLESALE CATALOGUE of DUTCH BULBS, ROSES, ETC., ETC., now ready. Send for it.

Address **C. H. JOOSTEN,**
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WHITE ROMAN HYACINTHS
FLOWER BULBS GROWER'S SYNDICATE, at OLLIOULES, var, FRANCE.

TELEGRAPHIC ADDRESS: ROMANUS OLLIOULES.

CROP 1890.
White Roman Hyacinths, Light Pink, Dark Pink, White Italian, White of the Mountain, Single Blue, Yellow, Lilium Candidum, Narcissus Totus Albus (Paper White), Double Roman, Jonquils, Allium Neapolitanum, Ornithogalum Arabicum, Etc., Etc.

Price List for Wholesale Dealers, free on application.

Agent: **C. MERTZ, 32 RUE LABAT, PARIS,**

CARNATIONS.

Hope to have a fine lot of **Field-grown** plants in the **Fall**.

Will make contracts **NOW**.

W. R. SHELMIER, Carnation Grower,
AVONDALE, PA.

G. V. VAN ZANTEN & CO.,
HILLEGOM, HOLLAND,
Headquarters for the Best

Hyacinths, Tulips, Narcissus, Etc.

Catalogue free. Apply to
S. ASCHER,
16 & 18 Exchange Place, New York City.

A Suggestion.

In an article in the issue of May 15, 1890, there is mention made of the Florist's Protective Association for the collection of bad debts, which has induced me to make the following observations and suggestions:

Why not go a little further with such an association than simply the collection of bad debts? viz.: in what is called a blue-book, giving each one in the trade a proper and true rating, being supplementary to, but not supplanting, the ground covered by the directory issued by the AMERICAN FLORIST.

This can be accomplished by printed forms, for which the following is a suggestion: Name, city or town, county, state, merchant, seedsman, nurseryman or grower, wholesale or retail, capital or value of property invested, value of property outside of business, if any, how much mortgaged for, married or single, if married, how many children, if any, whether good, fair or slow in paying debts, reputation for sharp dealings, reputation for renaming or substituting, reputation of seed, whether good quality of goods is generally kept in stock, advice as to selling goods on time, C. O. D., or cash with order, and perhaps more in the way of remarks to cover individual cases.

There is no good and valid reason why this could not be carried out. Other trades have such associations, why should not we as well? It would certainly be of value to members, and of course it is understood that only members are entitled to information from such books.

Think it over, but if you wish to see such an affair put in working order do not stand back and look idly on, but go out, take off your coat, roll up your sleeves, and put your shoulder to the wheel and help it up the first hill. It will take care of itself after that, to a great extent.

ALFRED B. COPELAND.
Springfield, Mass.

NEW SWEET SCENTED CHRYSANTHEMUM
"Nymphæa." A decided novelty. Form and fragrance of *Pond Lily*. Fine for florists' use. A so the *crème de la crème* of older varieties. Send stamp for plate of "Nymphæa," and *Osteologie*.
H. W. HALES, Ridgewood, N. J.

FOREIGN GRAPE VINES.

Large list of Varieties for Planting
Hot or Cold Graperies.

FISHER BROS. & CO.,
MONTVALE, MASS.

LOTUS,
NELUMBIO SPECIOSUM,
AND
WATER LILIES,
ALL COLORS.
AQUATICS FOR THE AQUARIUM, Etc.
Send for Catalogue.
BENJ. GREY, Malden, Mass.

DRACÆNA INDIVISA, 15, 18, 21 and 24 inches h/gh,
\$1.50, \$2.00, \$2.50 and \$3.00 per dozen.

Strong Rooted Cuttings Coleus, mostly Ver-
schaffeltii..... \$1.00

CLEMATIS VIRGINIANA..... 6.00

W. W. GREENE, SON & SAYLES,
WATERTOWN, N. Y.

CLEMATIS JACKMANII.
Fine young plants for bedding. Also 2 year plants.
Prices on application.

JABEZ JOHNSON, 919 N. Main St., Dayton, O.

Special Offer FOR TWO WEEKS ONLY.

We will hold this stock until June 10th before planting out.

Gloxinia Bulbs.

Finest mixed strain. One of the best summer flowers for cutting. Few know that the flowers last for 10 days after being cut when placed in water. 10 cents each, \$7 per 100.

DAHLIAS—Dry field roots; named sorts; white and yellow, etc. \$10.00 per 100.

CANNAS—Named sorts, \$6.00 per 100. Fine mixed or dark or light foliage, \$4.00 per 100.

V. H. HALLOCK & SON,
QUEENS, N. Y.

TUBEROUS BEGONIAS.

We still have fine plants of these, many of them showing buds. Don't fail to try some; they make a fine show when in bloom, and sell at sight. Nothing better to decorate a greenhouse over summer that would otherwise be empty.

Big plants by Express, \$2.50 per 100. Small ones by Mail, \$3.00. 50 at 100 rate.

BRAUER & RICHTER, MCCONNELLSVILLE, OHIO.

CELERY, CABBAGE, AND CAULIFLOWER PLANTS.

Fine plants, from Reliable Seed. Packed light to go any distance with safety.

CELERY.....per 1000, \$1.80
CABBAGE....." 1.25
CAULIFLOWER....." 2.75

Trade List and Prices on larger quantities sent free on application.

We make this a Specialty, and can supply your wants in this line satisfactorily.

JOHN BLOOMFIELD,
L. B. 215, OVAL CITY, Stark Co., OHIO.
Telegraph and Express Office, Middle Branch, O.

NEW SEEDLING CHRYSANTHEMUM "ORANGE BEAUTY."

This novelty has been in bloom with us last year from September until June and is now in full bloom. We can supply fine plants in 2½-inch pots at \$1.10 per 100 plants, or \$10 per 100. Also a large stock of Grand Duke Jasmine, 2½-inch pots, \$5.00, and 3½-inch pots, \$7.00 per 100. Jasmine multiflorum 2½-inch pots, \$3.50 per 100. Bourdiana Beckii and Cleveland, 2½-inch pots, \$3.00 and 2-inch pots \$4.50 per 100. Albano Hendersonii, from 2½-inch pots, at \$7.00 per 100; from 1½-inch pots, strong plants, \$1.10 per dozen, or \$3.00 per 100.

Terms, cash with order or satisfactory reference.
FRANCIS MORAT'S SONS & CO.,
LOUISVILLE, KY.

Three new American Seedling Chrysanthemums, raised by Mr. Wm. Scheldrick.

GOLDEN BEAUTY, a splendid grower, of dwarf, stocky habit making the pot plants, Chinese type and of the richest golden yellow, most probably the finest yellow in existence. 25 cents each; \$2.00 per dozen.

PURITIFERA, a colossal grower, making fine show plants, flowers of medium size, very numerous, of perfect form and beautiful purple; a scarce color, therefore very welcome. 25 cents each.
RED FIELD, a distinct novel variety, of vigorous growth, dwarf habit, single pompon style, very pretty, flowers abundant, beautiful cherry red with yellow center. There is nothing like it. 35 cents each; \$4.00 per dozen.

A few thousand of the choice older kinds still on hand. \$2.00 per 100; \$15.00 per 1000.

Address **J. C. GIBSON, Woodbury, N. J.**

SUGAR MAPLES.

The Finest of all Shade Trees. Orders booked now for Fall Delivery.

Sugar Maples, 4 to 6-in. per 1000 \$4.00; per 1000, \$30.00
5 to 8 feet, per 100, 500, 1000
5 to 8 " " \$10.00 \$27.50 \$30.00
Scarlet Maples..... 5 to 8 " 30.00 30.00 65.00
Water Maples..... 5 to 8 " 8.00 25.00 45.00
White Ash..... 5 to 8 " 8.00 25.00 45.00

Evergreens in variety. Submit list for quotations on anything needed.

W. W. HENDRIX, Bowling Green, Ky.

Choice Stock Cheap.

Primula Obconica, strong 2-in.....	Per 100
Cannas, choice varieties.....	3.00
Geranium in 15 choice varieties.....	4.00
Geranium White Swan, 2½-in.....	3.00
Geranium Rose Scented 2½-in.....	3.50
Fuchsias, choice young stock, 2½-in.....	3.00
Dusty Miller (Centaurium gymnocarpum).....	2.00
Abutilons, 4 varieties.....	3.10
Heliotropes Garfield.....	3.00
Trailing Vines Major, 2-in.....	2.50
Violets Marie Louise and white, 2½-in.....	3.00
Rose Brier, 2½-in.....	4.00

25 or 50 of any the above at the 100 rate

Address **N. S. GRIFFITH,**
JACKSON CO. INDEPENDENCE, MO.
(Independence is well located for shipping, being 8 miles east of Kansas City.)

FINE STRONG PLANTS,

2½-inch pots, such as,	Per 100
Geraniums, ast., double and single.....	\$ 2.50
Fuchsias, fine strains.....	2.50
Salvia Splendens.....	2.50
Fuchsias, fine sorts.....	2.50
Heliotropes in choice.....	2.50
Alternanthera in sorts.....	2.50
Basket and vase plants such as Lobelia, Alys- sum, Ixora, Vinca var. Ivy Geraniums, etc. at 2.50	
Twenty-five to fifty at hundred rate.	
Cash with order.	

W. H. SCHNABEL,
Croton Falls, N. Y.

ALTERNANTHERAS.

I have a surplus of six varieties of Alternantheras in 2 and 2½ inch pots, in good condition. Will sell at \$3.00 a 100.

Also ECHEVERIA SECUNDA GLAUCIA, in same size pots, at same price.

ALEXANDER NEWETT,
22nd St. and Milard Ave., CHICAGO.

PRIMULA SEED.

Primula Obconica.....	pkt. (100 seeds), \$.75
Primula Floribunda.....	pkt. (100 seeds), .25
Coleus Verschaffeltii, Golden Bedder.....	per 100, 3.00
Coleus in variety.....	per 1000, 3.00; " 3.50
Alternanthera, 3 varieties.....	" 3.00

I. N. KRAMER & SON,
MARIION, IOWA.

BOUVARDIAS.

We still have 800 nice young plants in 2-inch pots, which we offer for \$3.50 per 100.

Address **FOEHLMAN BROS.,**
Morton Grove, Ill.

PANSY SEED.

NEW CROP.

ORDERS BOOKED NOW, for delivery in rotation,
on arrival of the new seed expected July 15th,
at the following low rates:

TRIMARDEAN, choicest French mixed, unsurpassed in brilliancy of color and size of flowers, some measuring from 3 to 4 inches across. Price, per lb. \$25.00; oz. \$3.50; ½ oz. \$1.50; ¼ oz. \$1.00; 1/8 oz. 75c; pkt. 50c.
Trimardean, Golden Yellow, ¼ oz. \$1.50; 1/8 oz. \$1.00; pkt. 75c.
Trimardean, Deep Purple, ¼ oz. \$1.50; 1/8 oz. \$1.00; pkt. 75c.

BIGNON'S (NEW), spotted, large flowering new Fansies, somewhat smaller than Trimardean, but of even more exquisite markings and richer colors, pronounced by many the finest strain produced yet. This variety produces few seeds and is very scarce. Per lb. \$50.00; oz. \$6.00; ½ oz. \$3.50; ¼ oz. \$2.00; 1/8 oz. \$1.50; pkt. 75c.

CASPER'S 3 and 5 blotched Giant, extra fine. Per lb. \$30.00; ¼ oz. \$2.00; 1/8 oz. \$1.50; pkt. 75c.
DIKER, or IMPERIALIS, Prize Fansies, 3 and 5 blotched, extra. Per lb. \$40.00; ¼ oz. \$2.50; 1/8 oz. \$1.50; 1/16 oz. \$1.00; pkt. 50c.

FALST (King of the Blacks), fine for bedding. Per lb. \$1.00; ¼ oz. 75c; pkt. 50c.
EMPEROR WILLIAM, dark blue. Per lb. \$1.00; ¼ oz. 75c; pkt. 50c.

LORD RECKENFELD, purple. Per lb. \$1.00; ¼ oz. 75c; pkt. 50c.
France, fine mixed, per lb. \$1.00; ¼ oz. 75c; pkt. 50c.
White, fine mixed, per lb. \$1.00; ¼ oz. 75c; pkt. 50c.
Yellow, fine mixed, per lb. \$1.00; ¼ oz. 75c; pkt. 50c.
All colors, fine German mixed, per lb. \$5.00; oz. 50c; ½ oz. 35c; pkt. 10c.

All colors, improved large-flowering, mixed, per lb. \$10.00; oz. \$1.00; ¼ oz. 75c; pkt. 50c.

Terms Cash.
Address
J. A. DE VEER,
18 Burling Slip, NEW YORK.

Pansy Seed

of the best quality, in the 24 best exhibition varieties, offered at very moderate prices.

Henry Mette,
Seed Grower and Merchant,
QUEDLINBURG, GERMANY.

JOHN A. BLAKE,
30 Vine St., NEW BRITAIN, CONN.
— IMPORTER OF —

EXTRA CHOICE PANSY SEED
Per 100
Solid White Yellow, and a fine mixture..... \$25
Extra choice mixture..... 75
Finest strains to be found in Europe..... 1.50
Also strong, wintered plants Primula Obconica, coming into bloom, \$5.00 per 100.

MAMMOTH SUNBEAM PANSY.

The finest strain of Mammoth Pansies grown; very large, of perfect form, and brilliant colors. A grand collection of the very choicest.
Extra, mixed, per liberal trade packet, 25 cents.
3 packets, 60 cents; 6 packets, \$1.00.

JOHN F. RUPP, Shiremanstown, Pa.

SPECIAL 10 DAY OFFER.

	Per 100
Achyranthus Emersoni and Erecta.....	\$3.00
Ageratum, purple and white.....	3.00
Alternanthera, yellow.....	3.00
Ampelopsis Veitchii, strong.....	6.00
Cobaea Scandens, strong.....	6.00
Canna French, strong pol. plants.....	12.00
Coleus, best bedding sorts.....	3.00
Fuchsias, best bedding sorts.....	3.00
Geranium.....	4.00
Geranium 4, Double Grand and other best sorts.....	2.00
Large plants, 4-in. pots, best sorts.....	6.00
Silver and Peppercorn-leaved.....	4.00
Ivy Leaf, 2½ and 3-inch pots, \$1 and 600.....	3.00
Heliopsis, best sorts.....	3.00
New Plants.....	6.00
Pelargoniums.....	6.00
Salvia Splendens.....	3.00
Tuberose from Brides and Florence Belle, strong plants.....	4.00
Vines, strong pla. 18.....	8.00
Vase plants, assorted.....	2.50

ROSES.

Jacks, Perles, Mermet, Papa Gontier, Niphetos, La France, Cook, Sunset, Salfranz, S. D. Ami, Bon Silene, Friches and Baltimore Belle, strong plants, 2½-in. pots..... \$45 per 1000, 5.00
Everblooming Roses, fine collection \$30 per 1000, 3.50

WOOD BROTHERS,

(Successors to I. C. WOOD & BRO.) FISHKILL, N. Y.

CAMELIAS.

I have 55 fine plants of double-flowered Camellias to sell, in 5 to 8-inch pots, plants 2 to 2½ feet high; strong, clean and healthy; mostly white and light colors. Will take \$10 for the lot, packed and delivered to Express Co. here.

W. T. BELL, Franklin, Pa.

F. R. PIERSON & CO.,

Tarrytown, New York, U. S. A.,

ORIGINAL AND LARGEST GROWERS OF



Lilium Harrisii Better known as The Bermuda Easter Lily

The Best in the World for Forcing for Winter Flowers.

WE OFFER ONLY STRONG FIELD-GROWN BULBS FROM OUR OWN GROUNDS IN BERMUDA.

THIS VALUABLE LILY IS OUR SPECIALTY.

We grow the bulbs by the acre on our own grounds in Bermuda. We were the first to grow it in large quantities and to offer it at reasonable prices, and we have always been recognized by the trade as

HEADQUARTERS FOR THE BERMUDA EASTER LILY.

Supplying the trade as we do both in this country and in Europe, and we hold by far the largest and the controlling stock of the genuine variety in the market.

The extent of our operations in this bulb alone will be best understood when we state that we expect to sell from OUR CROP of 1890, over a

HALF A MILLION BULBS.

Be sure you get the genuine Lilium Harrisii. In order to secure "the true variety," purchase your bulbs from original stock, which is known to be pure. The value of this Lily has led unscrupulous or ignorant parties to plant L. Longiflorum in Bermuda, or grow it there one season and send it out as Harrisii, and dealers should look with suspicion on bulbs offered at prices less than market rates, as the supply has never yet met the demand: "Mixed Bulbs" only being offered at reduced rates.

This is not only the best by far of all lilies for winter blooming, but it is one of the most profitable flowers that can be grown by florists. It is very easily handled, and the flowers being especially effective for decorative purposes, always command large prices. From its name some have thought it was a bulb for florists' use for forcing for the Easter market only. This is not exclusively so; it derives its name from the fact that in Bermuda, grown in the open ground, it blooms at Easter time—hence the name "Bermuda Easter Lily"—but by growing it in this country in the greenhouse, with successive lots, it can be had in bloom all the winter from early in December until after Easter; in fact, by special culture, all the year round, or as long as cut flowers are in demand. The fact that it can be forced into bloom by the Christmas holidays adds particularly to its value, as it fills in at a time when flowers are usually scarce and in great demand at high prices, but to accomplish this the bulb must be potted early in August, something depending upon after treatment and temperature the bulbs are grown in.

For this purpose our Bermuda-grown bulbs are indispensable, as in Bermuda the bulb reaches its highest development, and ripens off perfectly, and is ready for shipment usually by the middle of July—before bulbs in our own country have hardly begun to make their growth. Our bulbs being grown in the open ground, in a climate naturally adapted for their perfect growth, are particularly strong and healthy at any time.

New Crop will be ready for delivery early in August. Orders booked for delivery at that date.

Large growers or dealers in this bulb should write us for special prices, stating quantity of bulbs desired, and we will give lowest estimate on the same by return mail.

F. R. PIERSON & CO.,

TARRYTOWN, NEW YORK, U. S. A.

New York.

The bedding trade is still very good; those who have an extensive experience in this line say it is an unusually successful season. Owners of country places are spending very freely in their embellishment. There is a continually increasing taste for fine shrubs and ornamental trees. A great many rhododendrons are being planted, though they are less popular with small buyers, who seem to regard them as expensive. There is an increasing interest in hardy plants, when laying out a country place. Bedding out in the city itself is comparatively small, however, as people now go out of town very early in the season.

Kalmia, magnolias and ox-eye daisies are all over the streets now, being sold by the bushel.

As for the flower market, at this season there are really notated and fixed prices. The excessive heat has made stuff both poor and plentiful, while, if there was a week of cold weather, stuff would probably be scarce. It is a pretty hard matter to quote prices, when we hear of roses selling for \$5 a 100 and \$5 a 1000 the same day. 35 cents for Beauties sounds well for June—but you can buy some of them for 5 cents as well as 35, and prices are just as fluctuating for all kinds of stuff.

A good many big peonies are to be seen in the market, both pink and white. Among orchid blooms, the finest now in are Cattleya gigas, of which Siebrecht & Wadley have a quantity of specimens.

Some of the plant importers who object to the McKinley bill intend to visit Washington to state their objections before Congress. The time when they will be given a hearing is not yet decided upon.

E. L. T.

A New Pansy.

"You have all varieties of pansies, I suppose?" he remarked, as he entered a florist's store. "Yes, sir." "Let me have some chimpanzees, please."—*Pittsburg Chronicle.*

BASKETS FOR SCHOOL COMMENCEMENTS.

Imported and Domestic make.

Apply for Special Price List to

August Rölker & Sons,
Dealers in Florists' Supplies,
No. 136 W. 24th St., New York.

SPHAGNUM PACKING MOSS, in bales.

GREEN ORCHID MOSS, in barrels.

FIBROUS PEAT, FOR ORCHIDS, in sacks.

Tree and Plant Labels of all kinds, printed, painted or plain.

MAILING BOXES.

Wire, Toothpicks, and all kinds of Nurserymen's and Florists' Supplies.

H. W. Williams & Sons,
BATAVIA, ILL.

Order Now

A Copy of our New

TRADE DIRECTORY

PRICE, \$2.00.

AMERICAN FLORIST CO., 54 La Salle St., Chicago.

MUSHROOM Growers are not saying much; but they wear a satisfied smile that is eloquent. "A crop in five weeks, and a dollar a pound." That's all right.



10 lbs.	25 lbs.	50 lbs.	100 lbs.
\$1.20.	\$2.75.	\$5.00.	\$8.00.

Special prices on large quantities. Our pamphlet on growing free to all.

JOHN GARDINER & Co.,
PHILADELPHIA, PA.

NEW CROP 1890. EVERGREEN CUT FERNS

Especially for Florists' Use.



FANCY.



DAGGER.

Single Thousand, \$1.50.	Five Thousand, \$6 25.
Ten Thousand, \$10.00.	

SPECIAL ATTENTION PAID TO SUPPLYING THE WHOLESALE TRADE.

Sample lot of 250 Ferns by mail, postpaid to any part of the U. S. for 75 cts.
White Daisies in their season, 75c. per 1000; 10,000, \$5.
Bouquet Green, \$2.00 per bbl. or \$5.00 per cwt.
Bouquet Green Wreathling, from 3 to 5 in. diameter, from 2 to 10 cts. per yard.
Sphagnum Moss, long clean fibre, dry or green \$1.00 per bbl.; 6 bbls. \$5.00; 20 bbls. \$15.00; 100 bbls. \$55.00.

L. B. BRAGUE,
DEALER IN FLORISTS' SUPPLIES,
HINSDALE, MASS.
Mention American Florist.

FLORAL DESIGNS.

A book which tells how to make them and shows how they look. Fifty tinted plates of approved designs, in fine shape for showing to customers in place of the bare wire designs; it "gets there" much better, and looks pretty while doing it. It is a good investment for any working florist at \$3.50, postpaid, and can be had of

J. HORACE McFARLAND,
Box 55. HARRISBURG, PA.



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Fumigators.

I see by the June number of your paper that some one asks for a good fumigator. After twenty-five years experience with all fumigators of the country, I think I have made one myself which is a success. It is at least a great comfort to me if not to the greenflies. With this I can fumigate five houses 100x20, in 40 minutes. This fills the houses so full that you can not see far in front of you and fumigates so quickly that the smoke does not get hot; therefore it will not injure the tenderest plant. Even heliotrope will stand it.

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This is what I call a perfect fumigator, and the whole cost was fifty cents and two hours' labor. Some of my brother florists may laugh at this, but if they doubt the truth of the statement I will show my device to them at any time.

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5 " "	per 100,	5.00	10 " "	per 100,	5.00
6 " "	per 100,	7.25	11 " "	per 100,	12.00
7 " "	per 100,	9.00	12 " "	per 100,	20.00
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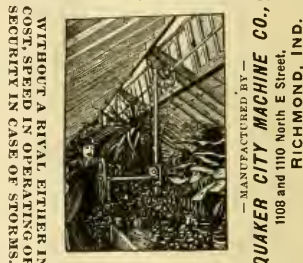
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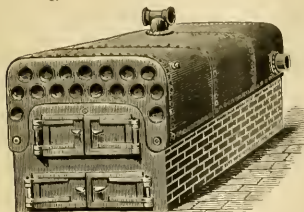
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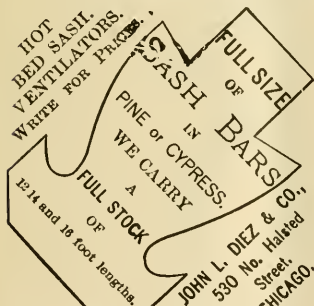
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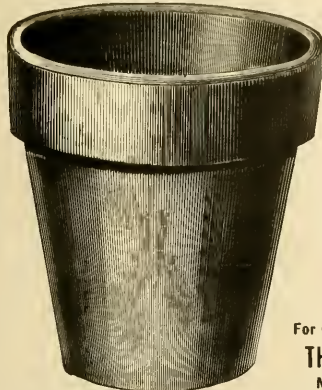
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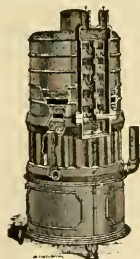
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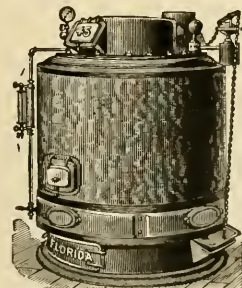
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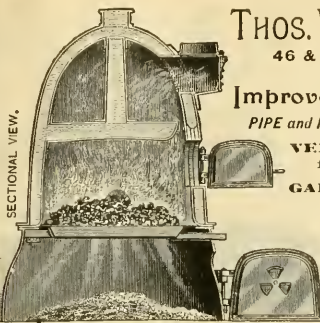
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Index to Advertisers.

Advertising Rates, etc.	548
Alberts G. & Co.	551
Aldine Printing Wks.	556
Allon, W. S.	549
Bayerdorfer H. & Co.	558
Beil W. P.	555
Berger, H. H. & Co.	551
Blake John A.	555
Blanc A.	556
Bloomfield John.	554
Brackerties & Co.	551
Brasus L. B.	552
Brauer & Richter.	554
Carmody J. D.	549
Crabb & Hunter.	549
De Veer J. A.	553
Davies's Boiler Wks.	559
Dickson, John L.	559
Dillon, J. L.	547
Dineen & Conrad Co.	547
Drer, H. A.	551
Elliott B. A. Co.	549
Fisher Bros & Co.	554
Fisk Chas H.	549
Floral Exchange.	546
Fress O W.	549
Gardiner Jno & Co.	556
Gibson J. C.	554
Greene W. W.	554
Sayles.	554
Grey Benj.	554
Griffith, N. S.	554
Hall Association.	559
Halse, H. W.	554
Hallock, V. H. & Son.	554
Hammond, Benj.	556
Hammond & Hunter.	549
Harland W. B.	553
Henderson John Co.	547
Hendrix W. W.	554
Herrenden Mfg. Co.	549
Herr, Albert M.	551
Hilfinger Bros.	558
Hippard E.	558
Hitchings & Co.	550
Hooker, H. M.	558
Horan, Edw C.	549
Hoyt R. D.	551
Hudson John M.	549
Hulsebosch A.	555
Hunt E. H.	549
Hunt M. A.	547
Hughes E. G.	557
Ives, J. H.	557
Johnson, Jabez.	554
Johnson & Stokes.	558
Joosten C. H.	555
Jorens W. A.	549
Kennelott Bros.	549
Kramer I. N. & Son.	554
Krick, W. C.	559
La Roche & Stahl.	549

Lockland Lumber Co.	559
Long Daniel B.	556
Loudale Edwin.	556
McCarthy N. F. & Co.	549
McFarland J. Horace.	556
Nachon C. C. & Sons.	553
Mathews, Wm.	551
May John N.	547
Mette Henry.	555
Michel Plant & Seed Co.	551
Miller, Geo. W.	547
Moody John A.	553
Morata F. Sons & Co.	554
Nullen Geo.	549
National Hot Water Heater Co.	559
Newett Alex.	554
Pennock Chas E.	549
Pierce Butler & Pierce.	559
Pierston F. R. & Co.	555
Plenty, Josephus.	559
Poehman Bros.	554
Quaker City Mch. Works.	554
Reed & Keller.	553
Rolker, A. & Sons.	556
Ross & Millard.	559
Rupp H. S. & Son.	556
Rupp John F.	554
Schiller & Malinader.	554
Schnabel W. H.	554
Schulz Jacob.	547
Scollay John A.	549
Sengers Bros.	553
Shelmer W. R.	555
Sheridan W. F.	559
Siebracht & Wadley.	551
Sievers John H.	554
Sipke Dophts & Co.	559
Situations, Wanted.	549
Spooner Wm H.	547
Stearns A. Lumber Co.	558
Stellens N.	558
Suyens B. A.	559
Swartz, Wm. J.	549
Strass C. & Co.	549
Studer N.	552
Syndicate of Growers.	553
Taylor John H.	546
Tuttle Sidney & Co.	547
Van der Schoot & Sons.	552
VanZanten G. V. & Co.	553
Ware Thos S.	559
Weathered, Thos. W.	549
Weich Bros.	549
Whitlin Pottery Co.	559
Williams H. W. & Son.	555
Wisconsin Flower Ex.	555
Wittbold Geo.	551
Wolf L. Mfg. Co.	555
Wood Bros.	555
Young Robert B.	555
Young, Thos. Jr.	549



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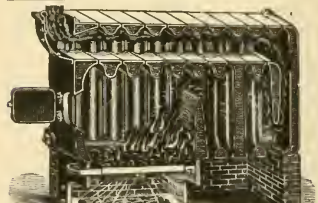
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SIMMERS, Toronto, Ont.

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THE AMERICAN FLORIST



America is "the Prow of the Vessel; there may be more comfort Amidships, but we are the first to touch Unknown Seas."

Vol. V. CHICAGO AND NEW YORK, JULY 1, 1890.

No. 118.

THE AMERICAN FLORIST

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Published on the 1st and 15th of each month by
THE AMERICAN FLORIST COMPANY.

Subscription, \$1.00 a year. To Europe, \$1.50.

Address all communications to
AMERICAN FLORIST COMPANY,
54 La Salle Street, CHICAGO.

SOCIETY OF AMERICAN FLORISTS.

SIXTH ANNUAL MEETING,

At BOSTON, MASS.,

August 19, 20, 21, 22, 1890.

J. M. JORDAN, St. Louis, Mo., president; M. H. NORTON, Boston, Mass., vice-president; WM. J. STEWART, 67 Bromfield St., Boston, Mass., secretary; M. A. HUNT, Terre Haute, Ind., treasurer.

CONTENTS.

Long Island notes	564
New York notes and comments	562
Basket of roses and snowballs (illustration)	563
The Barlow plant sale	563
Orchid names	563
Roses—seasonable notes	564
Hardy perennials in nursery catalogues	564
California notes	564
Two valuable shrubs (with illustration)	565
New plants	565
Chrysanthemums—seasonable notes	566
Boston	566
New York	566
Chicago	566
San Francisco	567
"The Gates," South Park, Chicago (illustration)	567
The fuchsia beetle	568
Foreign notes	568
Growing pansies	568
News notes	569
Coming exhibitions	569
The Florists' Clubs	572
The World's Columbian Exposition	572
The Hort. Dept. at the World's Fair	572
For Hort. Commissioner	572
World's Fair Commissioners	572
The seedsmen at Saratoga	574
Seed trade notes	574
Catalogues received	575
The amateur's lament	575
Springfield, Mass., exhibition	582

RECENT LOSSES paid by Florists' Hall Association: The John A. Salzer Co., La Crosse, Wis., \$41.63; J. W. Losey, La Crosse, Wis., \$28.54; D. M. Briggs, Avoca, Ia., \$15.66; L. C. Chapin, Lincoln, Neb., \$40.35.

FROM a daily paper we learn that among the changes made in the McKinley tariff bill by the Senate Finance Committee "The free list is lengthened by the addition of orchids, lilies of the valley, azaleas, palms, and certain other plants."

OUR CONVENTION SUPPLEMENT will be published with the issue of August 15, and the map and directions it will contain will, we believe, be of considerable value to those attending the meeting at Boston. Exhibitors wishing to call special attention to their exhibits will find the supplement a very effective medium.

Long Island Notes. BY WM. FALCONER.

A BAD COMPLAINT.—Dyspepsia when the strawberries are ripe.

MAKE HAV while the sun shines, but don't forget to run the cultivator between your growing crops.

SOW SEEDS of calecolarias, cinerarias and Canterbury bells for next season's flowers.

THE "rogues" must be routed. If you save your own seeds of anything be sure you pluck up and discard every plant bearing inferior flowers as soon as it comes into bloom.

THE NARROW-MINDED florist doesn't think much of this plant or of that one, simply because he has never grown either of them well. But there are other florists and other opinions.

RAISE SOME young chrysanthemums. Take fat, fleshy tips and make cuttings of and strike them now, then grow them on in pots, and I think when next November and December come you won't repent it.

STAKE YOUR chrysanthemums if they need it. I use one stout stake to each plant, and I find it pays to apply the stakes before they really are needed, rather than wait till the plants kneel over before staking.

STAR of Quedlinburg phloxes this year show as great a variety in coloring as do the flowers of an ordinary Drummondii grandiflora strain.

EVERLASTING PEAS are not fragrant, hence their unpopularity, but as they are hardy herbageous perennials, long-lived and perfectly hardy and bear a great profusion of handsome rose-purple or white flowers, florists should grow a lot of them, especially of the white one.

TEN-WEEK STOCKS.—From sowing time in March till blooming time in June is only about three months; this might lead us to think that in three months we can get ten-week stocks in good condition at any season of the year, but this is not so according to my experience. I never have had good ten-week stocks after midsummer, no matter when I sowed them.

"AMARANTHUS MARGARITAE" may please some folks, but it does not please me.

DOUBLE PETUNIAS.—If you want the largest possible flowers plant out your petunias, but the best wood for striking is had from pot plants.

SPOTTED MIMULUSES.—Odd but strikingly beautiful flowers and now in their heyday. Only for pot or garden decoration; of little use for cutting. Although the seeds are very small they have great vitality and are almost sure to grow. Sown in March, planted out in rich moist ground in May, in bloom in June, cleared off in July and succeeded by mignonette for fall use.

THE PINK CATCHFLY (*Silene Armeria*) from self sowings of last year is in bloom and a very pretty annual it is. Apt to become somewhat of a weed in spreading about, but never in oppressive quantity.

SWEET WILLIAMS are in all their glory. As garden flowers they are effective and desirable, but for cut flowers nobody seems to want them, they are too bunchy.

GALLARDIA GRANDIFLORA in many varieties is in full bloom and bright in the garden and in demand for cut flowers. It is quite hardy, a good perennial, easily raised from seed and long lived.

TIERMOPSIS CAROLINIANA is a little past its best. Good clumps of it are quite telling in the garden, and if to be had in large bunches it would be desirable for cut flowers, but its tall spikes of soft yellow lupin-like flowers are only effective when used in bunches.

HARD PAN.—Although we have a host of hardy plants now in bloom, when it comes down to naked facts only about half a dozen are asked for particularly as cut flowers. They are Canterbury bells, poppies, foxglove, *Coryopsis lanceolata*, the later peonias and the earlier Kämpfer's irises.

COSMOS BIPINNATUS.—I have found that so far as earliness in blooming is concerned it doesn't matter much whether I sow in March or June, both begin to bloom together and about the end of September.

HELIOPSIS LEVIS is a hardy perennial, a small sunflower, and pretty enough, but such a pest. Its seeds ripen abundantly and get scattered about and germinate in great quantity, and not only in the empty spaces between the plants, but also in the very crown of plants. Root it out.

LILUM HANSONI is one of the choicest of our Japanese lilies and high priced. A curious fact about it, however, is that we have no fully native or exotic that grows more vigorously or keeps healthier than it does. We have clumps of it in the shrubberies with 30 to 50 stems in each, and the stems 3 to 5½ feet high and carrying 7 to 17 flowers apiece. But notwithstanding all this coupled with its hardiness, earliness and fragrance, I think its beauty is overrated. It never seeds with us.

THE GOLDEN ALYSSUM (*A. saxatile*).—I have just gathered the seed and will sow now for strong blooming plants for next spring. Although it is a perennial it is well to raise a fresh lot of plants every year.

THE DOUBLE FLOWERING sweet alyssum makes a real pretty border and scents the atmosphere all about it, but if we wish to have it as compact and pretty in the fall as it now is we have got to cut it in a little.

THE DOUBLE FLOWERING White Weed

(*Chrysanthemum Leucanthemum semiduplex*) came to us recently from Europe with great hurrah. What a ragamuffin wretch it is. In general appearance, habit and freedom of growth this new comer is the counterpart of the typical form, but while we all admit that the flowers of the pernicious White Weed are pretty, few will deny that this semiduplex variety is other than an ugly renegade.

CHRYSANTHEMUM MULTICAULE has been in bloom for a month and it is still spreading in body, multiplying in buds and increasing in attractiveness. It is a pretty little golden flowered annual from South Africa, and a novelty this spring. But notwithstanding its profusion it is of little use for cutting, hence will hardly become as popular as *Drummond phlox* and other annuals that are useful for cut flowers.

CHRYSANTHEMUM LACUSTRE and *C. latifolium* are, I presume, used to designate the same plant; anyway it is a good plant and now in full bloom. The flowers are very large (on our plants as much as 3½ inches across), white, daisy-like, solid and full formed. The plants are 2 to 3 feet high and branched, and the flowers occur singly terminating the main and lateral shoots. The flowers, although large and showy, are stiff, and I don't think abundant enough to make it a desideratum for florists to grow in quantity for cut flowers. It is a hardy herbaceous perennial.

ANTHEMIS, double yellow *Marguerite*, is the name that occurs on the New York auction bills for what Robert Craig, in the *FLORIST*, page 303, February 15, 1888, figures and describes as *Anthemis coronaria* fl. pl. Planted out in summer it is one of the most generous blooming plants we have, of compact but vigorous habit, and always in bloom. Well worth growing for summer yellow flowers and a good deal cultivated for winter blossoms. Easily increased from cuttings.

LEMON VERBENAS wintered in a cold frame. Last fall I lifted a lot of plants that had been planted out over summer, cut them in a good deal and heeled them in pretty close together in a deep, cold frame. They lived all right, and in spring I set them outside again, and they now are growing as vigorously as can be and absolutely clean.

THE "New Miniature Dwarf Sunflower" (*Helianthus cucumerifolius*) from seed sown indoors in April, and the seedlings planted out about the middle of May are just beginning to blossom. Each plant has a stake to itself to keep the wind from breaking its branches, but in field culture this is not necessary. These plants will bloom in good condition till mid-July strikes them in August, and then they will be succeeded by young plants now an inch high. Young plants do not mildew. For cut flowers they are capital, so bright and so abundant, and as the flowers are of small size they have none of the coarseness or stiffness peculiar to the big sunflowers.

MOST of our white birches have been seriously injured during the past winter and fully half of their spray is dead. The fern-leaved varieties have suffered most, Young's Weeping next, and the purple leaved the least of all. But I have no doubt location and other local circumstances had a good deal to do in the matter. Other species of birches have suffered no apparent injury. And I am informed that this birch-killing is pretty general in the east this season. The white birches at Boston have suffered

severely, and Supt. Parsons, of Central Park, New York, tells that not only have the large trees in the park suffered but most all of the young ones that were planted last winter have been nearly killed.

SYRINGA JAPONICA, the tree lilac, is now, June 17, in full bloom. The panicles are immensely large and the flowers small, creamy white and fragrant. It is no exaggeration to say that each panicle just now contains about 100 rose bugs, thus materially robbing us of the pleasure of having this noble species in such fine condition.

ROSA RUGOSA VAR. *MADAME GEORGES BRUANT*.—This is a hybrid raised by Bruant. *Rosa rugosa* was the male parent and the female one was the Bourbon tea *Sombreuil*. In its foliage and spiny stems this new comer bears a close resemblance to *R. rugosa*, but the foliage isn't as good and the habit of the plant isn't as compact. The flowers are white, sparsely double, decidedly tea scented, and borne in terminal clusters, but they open only one at a time in the clusters and not all together as we find in some other roses. As an ornamental shrub in the way of habit and fine foliage it is not as good as *rugosa*, as cut flowers its blossoms do not amount to much, and as a garden flower it certainly is not as good in my eyes as the plain *Rosa rugosa alba*. Judging, however, from its behavior here, I should say it is hardy enough, also quite vigorous.

HARDINESS of *Nelumbium speciosum*, page 550.—That depends. It certainly is hardy with Mr. Sturtevant. If the roots are well established in the pond and deep enough under the surface of the water never to come within the reach of ice, they will live over winter well enough. But if ice ever reaches them it kills them. And they are harder in sunny waters than in shady pools. I have also found that the yellow water lily of Florida, namely, *Nymphaea flava*, likewise the South African *Aponogeton distachyon*, are hardy in the same way.

New York Notes and Comments.

At this season there is much building and alteration going on which, with the fresh planting, makes the establishments of most growers very full of occupation. There is much new glass going up here and there around New York, and judging from the brisk sales reported planting must be quite extensive. Looks as if there would be plenty of hybrids next winter, and the growers are hoping earnestly for a drier season than last year, as then the continued wet weather prevented a proper ripening of the wood, naturally resulting in an excess of blind shoots. Speaking of hybrids, Mr. Chas. P. Anderson gives as his emphatic opinion, the fact that the best hybrids for the New York market are without doubt Mme. Gabriel Luizet, Merveille de Lyon, Baroness Rothschild and Magna Charta. He speaks of Merveille de Lyon in terms of exceptionally high praise, as the most beautiful and satisfactory rose of its color. Another hybrid of which he speaks very warmly is Prince Arthur, a rich crimson similar to Jacq, but really better in color; it comes in earlier than Jacq and is a better keeper, seldom turning blue in tint after cutting. This rose, though introduced several years ago, seems little known in the trade, though there is room for first class and satisfactory crimson.

During a recent visit to the John Henderson Nurseries at Flushing the climbing

Perle was especially noted. It is assuredly a very strange freak. Apart from its climbing it is a vigorous Perle in every respect but one, it invariably has seven leaflets instead of five, as the original. The foliage is very strong, in fact the whole plant is full of vigor, color of the young shoots very red, the flowers are regular Perles, but usually a trifle larger than the average. It is always in flower and that is one very strong point over the favorite Niel. This rose will certainly make a grand show in any house where there is space for a climber.

Among small roses here, Mme. Falcot is regarded as one which pays very well, the flowers are small but sell readily, as they show up a lovely clear yellow at night, and so many yellow or buff roses only look a dingy white by gas light. Falcot is quite prolific too, and for the last season at least, it seems to be regarded as a fancy rose. Similar in class is Watteville, but though this has been very popular it is thought likely that it may decline in favor, as many of the fancy roses do. It takes several seasons before a grower feels fully conversant with a new rose and up to all its little tricks and peculiarities, and it is rather annoying if it goes out of fashion just when he knows it all the way through.

As to Meteor, it must be satisfactory or Mr. Anderson has faith in it, for he is filling a house with it. It seems to be in flower just all the time; of course it was always regarded as a good summer rose, but experience last winter shows its value for winter blooming too. The color is exceptionally brilliant, even under a burning June sun, it seems, however, that the rose always demands a high temperature. It is grown very little, comparatively, around here; it was felt to be rather a disappointment at one time, simply because no one knew just what it wanted. We may yet come to say the same of Wootton, though such an idea will seem sufficiently doubtful to those who have tried it.

Looking at some of the hybrids, Mr. Anderson pointed out the difference between plants of English and Dutch growth; the Dutch growers have a way of working them on such a tall stock that the plant has a very awkward, high-shouldered look, apart from other objections. The English plants are always preferred.

Naturally roses take the lead at Flushing, and there is an abundance of fine stock, but a lot of chrysanthemums may be noted. No extensive stock is carried for trade purposes, they are grown purely for cut flowers, and are all the strong, large-flowered sorts, like R. Bottomly, Mont Blanc, President Arthur, and so on. In good chrysanthemums the market here demands large, fine flowers on long stems, with good foliage; exactly the same rules apply to them as to roses. Of course an immense quantity of chrysanthemums which do not fill these conditions will always be sold, but these are high grade flowers. When you hear of chrysanthemums selling for the same prices as large roses, you may be sure that they are these high grade flowers, occupying the same relation to others of their class that the Beauty does to smaller roses.

At Bayside, L. I., J. H. Taylor is increasing his already large place; eleven new houses are in process of construction, but the actual gain in number will be nine, as two old ones are to come down. One new range of ten houses presents some new features; they seem likely to be a very useful style. In size they are 20x53



BASKET OF ROSES AND SNOWBALLS.

and they are glazed with the idea of securing extra ventilation. The upper half of the span, on either side of the ridge, is glazed in ordinary fashion, with five ventilators on either side, while the lower half is made of removable sashes. When the sashes are off and the ventilators open it is practically a roofless house, but it is very much stiffer than sash only, as well as more convenient. These houses are intended for chrysanthemums or hybrids planted out; there are no beds. Steam heat will be put in. Some are already planted with chrysanthemums, which are apt to suffer from the excessive rain even so early as this.

Mr. Taylor has been planting a house full of *Hoste* in fine condition; this is another of the roses which seem likely to attain very great popularity. Meteor, too, is to be planted here more extensively. Cusin, which was always an exceptionally fine rose with Mr. Taylor, was a great success during the past season, and is still showing good blooms. Among small roses Mr. Taylor puts *Papa Gontier* very high as a paying flower; it has always flourished with him and is very prolific; there is no question of its value when properly grown.

At both Flushing and Bayside the new houses are so exceedingly light—as a rose house always should be—while strength is secured by the use of iron in the construction. Instead of cumbersome sup-

ports the roofs are stiffened by iron purlins across the sashes, bolted in place by iron knees; with the iron braces across the house the maximum of strength is secured, with the smallest possible obstruction of light. Construction has improved surprisingly within two or three years.

EMILY LOUISE TAPLIN.

The Barlow Plant Sale.

At Glen Cove Landing, June 6 and 7, the greenhouse plants belonging to the estate of the late S. L. M. Barlow, Esq., were sold at auction by order of the executors.

Elsinore, the Barlow property, is one of the handsomest on the north shore of Long Island, and the greenhouse establishment the most spacious and pretensions private one on the same coast. The glass houses are roomy structures and consist of palm house, orchid house, rose houses, compartments for miscellaneous plants, vegetable forcing houses, early and late vineries, pine apple house, violet house, etc. And as the place had been in full running order for many years and Mr. Barlow was passionately fond of flowers and plants and continually adding to his store, much interest was centered in its breaking up. The plants were duly catalogued and advertised and disposed of in a two-days' auction sale, upon the premises. Miscellaneous plants were dis-

posed of on the first day, and the orchids on the second day.

Palms in pots brought large prices, and miscellaneous plants from 10 cents to \$2 each, a few sold for more and many for less. Azaleas from 10 to 30 years old were sold for 15 cents each; cactuses from 25 cents to \$7 each; nymphæas for \$1 a tub, etc. Fruiting and succession plants of pine apples fetched 75 cents apiece. The orchids ranged from 2 cents to \$3.25 each. Stanhopeas went for 10 cents, *Cymbidium eburneum* for 15 cents, *Cataclysus* 20 cents, *Angraecum "superbum"* 20 cents, *Laelia purpurata* \$1.50, *acincta* 5 cents, *Laelia harpophylla* 10 cents, *epidendrums* 2 cents, *Dendrobium Wardianum* 10 cents, *Vanda teres* 15 cents, and *Phajus grandifolius* for \$1.50. Some plants of *Percesteria elata* throwing up flower spikes brought \$3.25 each. These prices may seem ridiculously low for orchids, but it was the general opinion of the florists present, that with very few exceptions, both orchids and the other plants brought all they were worth.

Camellias, palms and some other things that were planted in beds in the houses were too large to meet with favor. The finest specimen plant sold was a magnificent cycad in a large tub. It had a clean trunk about 6 feet high and 24 or 30 inches around, and a massive crown of old leaves and another of young leaves some 6 to 7 feet long. Siebrecht & Wadley bought it for \$50, which price was nearly three times as large as what was paid for any other plant at the sale.

The naming of the plants was deplorable, in fact, the florist buyers renounced the catalogue names altogether. A few instances of misnaming: *Crassula lactea* was sold as *cheverius*, *Cereus Peruvianus* that reached to the top of the palm house, as *C. giganteus*; *Odontoglossum grande* as *Dendrochilum filiforme*; some weedy *maxillaria* as *Disa grandiflora*, *Dendrobium moschatum* as *D. scutell*, and so on. I really believe if a little of the steam of "Education for young florists and gardeners" were turned upon us old chaps it wouldn't hurt us.

But the unique feature of the auction was the disposition of the pots. The pots in which the plants were growing were not sold with the plants but separately, and it was amusing when A. B. bought the plant and C. D. the pot. And it often happened that the pots fetched a great deal more than did the plants that were growing in them, for instance, some sawn palm would be knocked down for 25 cents, and the pot it was growing in for 50 cents. This pot business gave rise to considerable growing. Some of the practical growers, however, perceptibly refused to buy or accept of the pots at any price. And it was an amusing sight when the plants were being delivered after the sale to see the workmen kick the pots off from the plants they had hugged so closely for a dozen years.

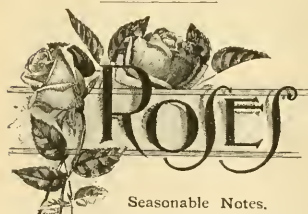
W. F.

Orchid Names.

In a paper read before an English society by Mr. Shirley Hibberd he says: The raising of hybrid orchids has brought about a curious crisis in botanical nomenclature. The binomial system may be said to be nowhere in face of the new array of facts. Take a few examples. I will begin with the actual *Cymbidium eburneum*-*Lowianum*, *Cymbidium giganteum* and *Cymbidium pendulum*. Then I will effect a cross between *Cymbidium giganteum* and *Cymbidium pendulum*, and the selected offspring shall be called *Cymbidium giganteo-pendulum*. This

last I will cross with *Cymbidium eburneo-Lovianum*, and the result shall be a beautiful orchid with the interesting name *Cymbidium eburneo-Lovianum-giganteopendulum*. And again we have *Dendrobium Wardianum-aureum*, and we have *Dendrobium crassinode Wardianum*. I will cross these and secure a new beauty to be called *Dendrobium-aureo-crassinode-Wardianum*. We shall have to manipulate generic names in an equally elegant manner; we cross *Laelia* with *Cattleya* and obtain a new genus to be called *Lelio-Cattleya*, and we cross in an opposite direction to obtain *Cattleya-Laelia*. The broad gauge man will take the hint to keep garden varieties apart from species, and to make more sort of genera than to allow of such barbarities. To him it will suffice that the new genus has no existence as such, because the parents were necessarily not generically distinct; and you do not need that I should add that, however convenient the distinctions between *Cattleya* and *Laelia* may be, they have not the force of dividing lines for scientific purposes. The orchidists are endeavoring to turn the world back to what we may speak of as pre-Linnean times, and they substitute descriptions for names, and where a definition is wanted they provide a confusion. In passing through a village the other day I halted to light a cigar and the voices of children arrested my attention. I heard one speak in a pretty manner a bit of rhyme apparently designed to puzzle a Scotch metaphysician, but it appeared to me to fit nicely to the new problem of the identification of an orchid. The rhyme ran thus:

Supposin' I was you,
And supposin' you was me;
And supposin' we all was somebody else,
I wonder who we should be.



Seasonable Notes.

Now that the planting season for next winter's crops has arrived no time should be lost in preparing the houses to receive them. This is an important item in their management—where the previous crop has not been kept clean “doubly so.” In all such cases it is well to shut the house up tight during the heat of the day, burn a good lump or two of sulphur in it, and allow it to remain closed for two or three hours, this will destroy every insect in the house at the time. Before doing so, however, all the old soil, rubbish, etc., should be thoroughly cleared and swept out. After fumigating it is well to mix up some lime wash made by slaking some fresh lime; with this give the entire benches, inside walls not painted, etc., a good coat; this serves a double purpose of helping to destroy any fungoid growth and as a preservative of the wood, besides giving the house a clean and neat appearance.

After this is done prepare the house by placing sod, grass side down, over the cracks; then put the desired amount of soil in; prepared as per former instructions; when this is done measure off the distances you wish to place the plants apart and proceed to plant them; make the hole large enough to receive the ball,

but do not bury it but a trifle deeper than it was in the pot, fill the loose soil in round about the young roots, taking care not to break them, then press it quite firm and if the surface is flat press the whole soil quite solid as soon as planted, but when the benches are made sloping as I have formerly recommended in this paper it is well to form a slight basin around each plant at the time of planting, pressing the soil near the plant quite firm, but leaving the balance somewhat loose, this permits the early weed seeds to start into growth and they can then be cleaned off much more readily than otherwise.

After three or four weeks the soil can be raked over smooth and the whole pressed quite solid, then a very thin mulching of well decomposed manure (not more than half an inch) can be spread over the entire surface of the soil, this will of course stimulate the plants into active growth and in this condition they should be kept, pinching off the buds as fast as they show till the time comes when they are wanted to bloom. This of course will vary according to locality, strength of plants will also enter very materially into consideration here. From October 1, a fairly safe guide to follow when the object is to get as many as possible at a certain time is to allow about six weeks. If the plants were good strong healthy plants from 3 or 3½-inch pots when planted, say early in July, a fair crop of bloom could be taken off during the first two or three weeks of October, and then another good crop be had for Christmas; but if the plants were any smaller at the time of planting than the above it would be very poor policy to attempt to get a crop from them so early in the season, as cutting even one or two leaves with each bud when the plants are so small simply destroys the chances of the next crop till the plants have had time enough to recover and make stronger growth.

Many growers make a great mistake when they try to make a small plant produce what a large vigorous one can only be reasonably expected to do, and if they would only put the thing to a fair trial side by side in the same house, keep a correct account of the production of each class of plants, they would soon find that it would pay them well to give a little more attention to the quality of the stock they plant in the future. Of course after treatment will always be a great factor in all these cases, for no matter how good the plants are when newly planted if they are not well cared for all the time they will not produce the desired result.

Shading. We are often asked if we shade our young plants in hot weather when first planted. To all such I simply say no; neither do I think it necessary for a rose house newly planted, on the contrary, we find the best result from them when we get bright clear weather to give all the air possible in conjunction with the clear sun light, this keeps the plants sturdy and the wood solid, and consequently in much better condition to stand a long winter's work than if soft and tender growth is permitted during the summer.

JOHN N. MAY.

Summit, N. J.

“Hardy Perennials in Nursery Catalogues.”

Apologies of your correspondent's remarks, page 538, that it is doubtful whether nurserymen could compete with regular growers who make such plants a specialty. Let us see. Nurserymen deal largely in hardy ornamental trees, shrubs,

roses, vines, fruit trees and the like, they appeal to the multitude and through their agents penetrate to the most unfrequented parts of our country, reaching a class of customers who never would buy plants if not personally solicited to do so. And while the men folks want the trees and vines and berry bushes, the women want some roses and pretty shrubbery. And what can associate more aptly with these plants than hardy perennials such as pæonias, larkspur and day lilies? If they can not be had from the nurserymen and at the same time as the nursery stock the chances are hosts of people who might gladly buy these hardy perennials will go without them.

Now, what say the nurserymen? Ellwanger & Barry run a large general nursery and also a large hardy perennial department; Thomas Meacham & Son do the same; Hoopes Brothers & Thomas are extending their herbaceous department, and Mr. Josiah Hoopes told me a little while ago that they had the demand for perennials increasing greatly; Temple & Beard run a general nursery and are exerting themselves vigorously in the hardy perennial line; and J. W. Manning, also a prominent nurseryman, gives critical attention to hardy perennials. All of these firms issue tree catalogues and bear special stress upon their hardy herbaceous perennial department. If it didn't pay them they would have given it up long ago, that's business.

Many nursery firms, however, have never gone into the hardy perennial business either as a specialty or as an auxiliary to their tree trade, hence can hardly be expected to comprehend its capabilities. They can scarcely urge if there was any great demand for these plants they would have felt it, for nursery agents do not encourage the sale of any plant or class of plants not included in their lists; besides the mass of buyers barely know what they want, the business of the agent like that of the florist's catalogue, is to teach them.

If every nurseryman goes into the hardy perennial business won't they overdo the thing? I have no solicitude on that score; on the other hand, I believe the more who handle these plants the greater and more increasing demand there will be for them.

But it will not pay the general nurseryman any more than it will the general florist who does not make a specialty of this department, to grow all manner of perennials. Restrict yourselves to the cream of hardy plants such as irises, pæonias, larkspur, white day lily, Japan anemone, herbaceous clematis, coreopsis, pyrethrum and the like, and the best and most serviceable sorts of these. And any person accustomed to getting up ordinary nursery stock can get up these perennials as well as can any specialist in the trade.

W. F.

California Notes.

ED. AM. FLORIST:—I send by this mail a photograph of some roses selected from among those shown at our annual flower show which has just closed. They were all grown out of doors in private grounds and without any especial care or cultivation.

Our flower show this year was a departure from former years inasmuch as only named varieties were exhibited. There were some 175 varieties of roses and the committee on nomenclature had a by no means easy task of giving names to many that were brought either with an improper name or none at all attached. Among the roses most admired, especially



TWO VALUABLE SHRUBS.

by the ladies, were the Marquise de Vivens, shown by Mrs. T. B. Shepherd, of Ventura, which here grows and blooms luxuriantly and with a great deal of color, not at all like the pretty "little" rose Mr. May describes, but quite a large and very beautiful one. There was a "Folkestone" shown that measured a little over five inches. These and the Papa Gontiers are just being introduced and are becoming very popular, especially the last, which is very hardy and thrives under all circumstances.

There is a growing interest in this state for named varieties of roses and "mums" and such shows as the one just closed will greatly tend to educate the people to a higher standard. Formerly roses and flowers in masses only were shown.

The Los Angeles flower show was held two weeks ago and was a great success financially and otherwise. The central piece was an Eiffel Tower of evergreens and callas reaching to the roof of the large hall. Then scattered throughout the room were immense banks and mounds of roses, one large circular table being devoted to the named varieties. The Raymond Company's Nurseries, of Pasadena, as represented by Mr. Hovey, showed orchids and other choice plants.

One of the show places near here are the nurseries of Joseph Sexton. He has some two acres of callas now in bloom, which are a sight to behold which you may well imagine. His carnations, of which he has nearly 500 varieties raised for seed, are worth a long journey to see. Santa Barbara, Cal. E. L. BAKER.

Two Valuable Shrubs.

The cut represents flowering branches of two most beautiful early spring blooming shrubs, *Pyrus spectabile*, fl. pl., and

Exochorda grandiflora. The flower buds on the pyrus are brilliant red in color, and the open blooms are rosy pink. The *exochorda* is pure white and as it is easily forced should be a valuable plant for winter cut blooms. Both introduced from China. W. J. S.

New Plants.

Among the new plants certified by the Royal Horticultural Society at the Temple Show were the following, the descriptions being taken from the *London Gardening World*:

LUPINUS FOXII.

The leaves of this lupin are digitate, with numerous lanceolate leaflets, corresponding to those of *L. polyphyllus*. The erect stems bear long racemes of flowers of an intense dark violet, with the upper half of the standard white. It will be an acquisition to the herbaceous border.

DELPHINIUM AUTOLYCUS.

The raceme of this, as shown by Messrs. Kelway & Son, was about 3 feet long, covered with semi-double flowers of great size. They were of an intense violet, with the outer sepals tinted with deep blue.

LASTREA FILIX-MAS CRISTATA FIMBRIATA.

The fronds of this beautiful sub-variety are spindle-shaped or elliptic in outline, with a few slender ramifications at the apex, and a crest terminating each pinna. The special characteristics of the variety are that all the pinnae are slender and narrow, while the pinnules are sharply and incisely toothed with slender teeth. The frond is therefore more graceful than those of the original crested variety itself.

ASTER ALPINUS SPECIOSUS.

The radical leaves of this aster are broadly spatulate and toothed above

the middle, while the cauline ones are linear-spatulate or linear and entire. The stems vary from 6 to 12 inches in height, and bear a solitary flower measuring from $2\frac{1}{2}$ to 3 inches in diameter with bluish purple rays and a golden yellow prominent disc.

SAXIFRAGA MCNABIANA.

The pot plants of this were about 10 or 12 inches high with the stems branching in a sub-pyramidal fashion. The flowers are large, white and richly spotted with red over two thirds of the area of the petals, with a greenish yellow eye.

PEONY CONCHIFLORA.

The leaves of this are twice divided, with oblong, obtuse segments. The flowers are single and sub-globular, owing to the broadly obovate petals being concave or incurved. The latter vary in number from 5 to 7, and are of a soft carmine-red, rather flamed with scarlet towards the base.

ANTHURUM ALBUM MAXIMUM.

This plant is a variety of *A. Scherzerianum*, with lanceolate, acuminate leathery leaves and a broadly ovate, creamy white spathe, slightly tinted with scarlet at the apex. The twisted spadix is light yellow.

CANNA, MADAME CROZY.

As grown in pots this variety is dwarf, with broad leaves of a rich green. The flowers are of great size and produced in short racemes. The segments of the perianth are scarlet and some of them are edged with yellow, while the small, central organs are yellow mottled with red.

NEW GLOXINIAS.

Mrs. J. Donaldson—The flowers of this variety are of fair average size, with a five-lobed regular lamina. The whole corolla is of an intense crimson, with the exception of a white portion spotted with purple at the base of the tube. The leaves are of moderate size with silvery veins.

Her Majesty—The leaves of this are dark green, the flowers erect and campanulate, with an unusually wide tube and comparatively narrow lamina. With the exception of a small pink spot at the base of the sinus between the segments, the flowers are pure white and very fine.

Prince of Wales—The leaves of this variety are netted with grey. The tube of the erect flowers is pink externally, but interiorly is dotted with violet at the base, passing into crimson upwards, and forming broad, rounded, crimson lobes on the lower part of the segments, the rest being pure white.

Princess of Wales—The tube of the erect flowers is pure white, the lamina pink, with a narrow rose band forming an arc on the middle of each segment. The leaves are dark green.

A New Netted Strain—Externally the tube of the flowers of this strain is white and crimson or violet in different individuals internally. The lamina also varies with crimson, scarlet and violet hues, curiously reticulated or netted with white on the base of three, four, or all of the segments.

TUBEROUS BEGONIAS.

Enchantress—The flowers of this variety are single, of good average size, and of the same type as Chatterer, but the upper half of the sepals is intensified to a rich carmine-crimson, with a large white blotch at the base of each. The leaves are of moderate width and deep green.

Henshaw Russell—Here the double flower consists of a few large and bold, rather loose rosettes of a bright scarlet.

The leaves are large and deep green. A very promising novelty.

Negro Boy—This is also double and crimson, made up of numerous rosettes with wavy segments, resembling those of a hollyhock. The leaves are half cordate and very dark green.

Rev. W. Wilks—The stems of this tuberous variety are dwarf, with closely arranged, broad, dark, olive-green leaves. The peduncles are very short, carrying the flowers almost erect. The latter are large, double and consist of a few rosettes. The petals are broad, flat and soft pink, with a darker edge, giving the flower a refined appearance.

PELARGONIUM, PRINCE HENRY.

The leaves of this decorative variety are very broad, cucullate, toothed and hardly, if at all, lobed. Both flowers and trusses are large. The petals have a broad, transverse, crimson-red band above the middle, with a white edge and base.



Seasonable Notes.

Green and black fly, spider, thrip and midew. These are the enemy in sight at the present time, and it is quite an undertaking to keep them at bay. The black fly is pretty well taken care of by our lady bird corps, but the green, or a green fly I should say, is a great pest and hard to kill. It is not the green fly that infests roses and other plants in the greenhouse, and is a deal harder to kill. Red spider will be troublesome on some plants, and thrips on all.

The best remedy I find for the fly, spider and thrip is tobacco water, made as follows: about 8 pounds of tobacco stems is placed in a wash tub, on this is sprinkled about 1 ounce of potash lye, it is then covered with water and steeped for a few hours. The stems are then stirred up and about a quart of the liquor is put to four gallons of water and the plants are either dipped in it or syringed with it every evening until clean. As prevention is better than cure, it will be wise to syringe the plants frequently with the tobacco water, though nothing of the enemy can be seen.

Midew is very injurious to many varieties and in some seasons and localities it is almost ruinous. The best remedy I have yet found is black sulphur (sulphur vivum) applied entirely over the plant with a bellows. Syringe the plants first and then put on the sulphur, be sure that every leaf is covered on the under sides, this should be followed up for at least ten days if the sulphur is removed either by rains or syringing. The midew I have reference to is the affection that comes on the mature leaves in black or brown patches and it makes its appearance when the atmosphere is murky and very moist—such days as we may expect about this season.

Keep a sharp eye on watering; when the atmosphere is surcharged with water let the soil become dry, but after the clearing away of the humidity be sure your plants are thoroughly soaked at the next watering.

JOHN THORPE.

Boston.

The cut flower trade has been quite steady and brisk all through June. There has been an unusual number of weddings and the demand for choice flowers for school and seminary graduations seems to increase considerably every year. The quality of indoor roses has not been up to the average owing to the prevalence of cloudy and rainy weather during the early part of the month, and the outdoor roses are coming in later than usual, so there has been no surplus of really good roses of any kind and customers have had to content themselves with second rate stuff in many instances. Carnations and lily of the valley are very good and in full supply. Spirea, paeonias, rhododendrons and other outdoor flowers have been brought in in large quantities. Smilax is more plenty and price lower.

The season seems to have been favorable for rhododendrons. Never before has there been such a gorgeous display of these as was to be seen during the last two weeks under the great tent at Mrs. F. B. Hayes' estate at Lexington. The place was crowded continually with visitors, the numbers running into the thousands, and the show was well worthy of the interest it excited. The plants are many of them enormous specimens and comprise the very choicest varieties obtainable. No expense has been spared to make the collection a notable one in number, size and variety, and Mr. Comley, the gardener, has been well rewarded this year for his care and patience.

The show of rhododendrons and azaleas at Mr. H. H. Himmewell's has also been superb this year, and large quantities of blooms from this place as well as from Mrs. Hayes' have been sent in to adorn the tables at the Saturday exhibitions of the Mass. Hort. Society.

The Gardeners' and Florists' Club is earnestly at work through its various committees perfecting arrangements for the reception, comfort and pleasure of its guests next August. If good intentions and earnest effort count for anything the members of the S. A. F. who visit Boston at that time will have little to complain of.

The beds in the public garden and other places are being laid out with a special view to the approaching encampment of the G. A. R. Appropriate mottoes and devices representing the various emblems of the order have been worked in with great accuracy and this feature of ornamental gardening although evidently falling into disfavor with people of taste, will no doubt give much pleasure to the general public. Large numbers of palms, evergreens and other large plants of a decorative or tropical character have been added to the embellishment of the garden this year, and this feature will doubtless give as much or more pleasure to the S. A. F. visitors as they will get out of the formal bedding. The garden will also be subjected to the scrutiny of another intelligent body of interested visitors, the Association of Cemetery Superintendents who have happily arranged to hold their annual convention at the same time and place as the S. A. F. and who will be a most welcome auxiliary no doubt in the deliberations of the latter society when the subject of "Landscape Gardening" comes up.

Mr. J. D. Reynolds and Mr. J. C. Vaughan, of Chicago, having come East to attend the Seedsmen's and Nurserymen's conventions took the opportunity to give Boston a short call. Mr. Reynolds received from the G. and F. Club at a special meeting called for that purpose,

a unanimous endorsement and recommendation for the position of Commissioner of Horticulture at the World's Fair of 1893.

W. J. S.

New York.

Mr. W. A. Manda sailed for Europe on June 21, for an absence of some months' duration.

At one of the recent auctions some of the palms sold realized rather more than the average retail price—a very good thing for the sellers. Auction prices have been very good, taken all around, this season. Some important orchid sales have taken place, but there are not so many of these as a few years ago, and the sales are very slow. In fact, most of the orchid buyers have filled up their places, and it does not look as if there were many new additions to the ranks of large orchid buyers. Trade rose sales are now in order, they are an important feature of the auction trade. A lot of stuff from Philadelphia has been sold at the New York auctions; competition is becoming quite keen between the two cities.

The flower trade is not at all brisk now, it takes a temporary spurt some days, the college and school commencements calling for quite a lot of flowers, but the main trade is over now for the season. A good deal of stuff, however, is sold at the summer resorts.

The Florists' Club has finally decided to hold an exhibition next November. Every effort will be made to render it an event of unusual interest and magnitude. The club is anxious to secure Madison Square Garden for the undertaking; since the alterations it is an exceptionally fine place for a big show. A great winter garden is one of the proposed features, carried out with a background of forest trees and evergreens. Another suggested feature is a fine tropical garden, of which there is plenty of material in the large establishments around the city. It is to be hoped that nothing will interfere with the proposed plan; New York will certainly support a flower show liberally, if it is only big enough. The public likes big things. The club expects the co-operation of many society people interested in horticulture, and will spare no exertion necessary to make a big success.

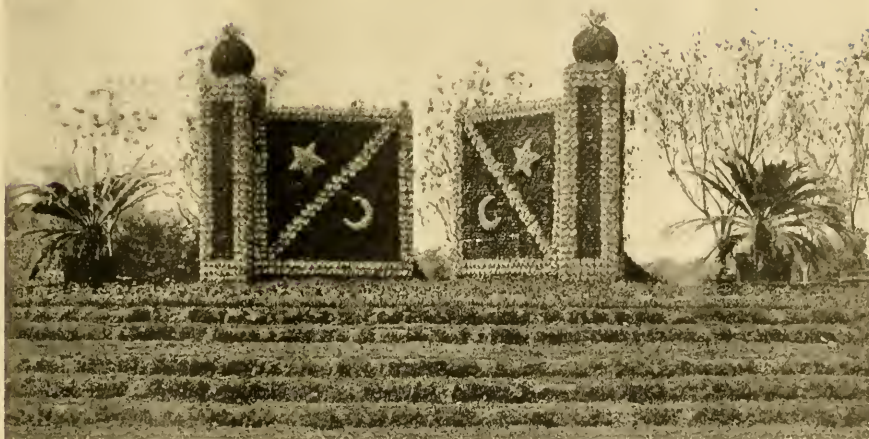
Pitcher & Manda will build nine new houses at Short Hills to be used for growing orchids, etc.

Mr. Thomas Young, Jr., and wife sailed for Europe June 21.

E. L. T.

Chicago.

The ponds of aquatics at Lincoln Park last summer proved such an attraction that two new and larger ponds have been made and planted for this season. The new ponds are located a short distance north of the old ones, in a portion of the park which has remained unimproved until recently. The Victoria regia which is now growing with remarkable rapidity in one of the old ponds was planted out April 20, the water of the pond being heated by steam pipes to a temperature of 80°. There was but little sign of growth at the surface of the water for some time and it was feared that a mistake had been made in putting out so early, but the present rapid growth shows that the plant had been gaining strength at the foundation all the time. At the head of the new ponds some elaborate rock-work is being constructed through which will be led the water that supplies the ponds, a pretty water-fall occurring in its course. A rustic bridge is



THE GATES, SOUTH PARK, CHICAGO.

also being built over the canal which connects the ponds.

The old greenhouses at Lincoln Park will be torn down this summer. Material has already begun to arrive for the construction of a new range of houses, fourteen in number, each 11x100. They will be located a little northeast of the old houses on a somewhat higher point of ground. The foundations for a handsome palm house will also be laid this summer, at the south end of the other new houses, but the superstructure will not be added until next year. Where the new houses are to stand an immense excavation has been made and this will be occupied by the carpenter and blacksmith shops and storage cellars, the greenhouses being built over the top. Concrete and cement will be freely used that no moisture may get through. The ground where the old houses stood will be terraced up to the new range, and the stately palm house will be a conspicuous object from a considerable distance by this arrangement.

Among other additions to the attractions of Lincoln Park to be made this summer is a statue of Linnæus the great Swedish botanist. It will be placed a little north-west of the site of the old greenhouses, in a conspicuous position, where work has begun upon the foundation. The statue was cast in Sweden and is now on its way to this country. When in position it will be supported by four allegorical figures. The statue is a gift from the Swedish residents of Chicago, the expense of the pedestal and foundation being borne by the park commissioners.

Superintendent Kanst has "got the earth with a fence around it" for a feature of his bedding display at South Park this season. The globe is about ten feet in diameter with the continents outlined in echeverias on a field of *Oxalis tropaeoloides*, the whole resting on a pedestal of echeverias. Around it are

short posts of echeverias with a ball of oxalis at the top, connected together by wreaths of amplexosis. It is probable that this is intended as a delicate reference to 1893. Another striking feature is "The Gates," standing some ten feet high and formed of echeverias, oxalis and alternanthera. The calendar and sun dial appear in much the same shape as last year, and the elephant which has been rusticated for several years again appears and is found resting on the green lawn as gracefully as an elephant can, especially one of echeverias. A taking feature with visitors is a roll of carpet which has partly unrolled down a grade. The pattern is very accurately worked out with various alternantheras. Then there is the butterfly, parasol, shield with the national colors, Maltese cross, lover's knot, ivy vine traced in alternanthera, and encircling all a bed of geraniums about four feet wide and half a mile long. Three ponds of aquatics near the greenhouses will soon make a handsome show. In them victorias, nymphæas, nelumbiums, pontederias, papyrus and similar aquatic plants are luxuriating. The greenhouses are gay with aehimines, begonias, fuchsias, etc., and there is a fair showing of orchids, among them a good variety of *Lælia purpurata*, and a specimen of the fragrant *Aerides Fieldingii*.

The Fuller greenhouses on Cottage Grove avenue are being torn down. This will remove another landmark of the trade in this city. The first greenhouse built on this place was erected by Desmond & McCormick about 1869; additions were made from time to time, by various owners, Mr. D. B. Fuller taking possession in 1878, since which time he has built up an excellent business there. A brick block will soon be built on the site of the old greenhouses.

The spring plant trade was very satisfactory. Stock was sold out very clean. While prices were nominally about the same as in previous years, they were

really somewhat lower, all desiring to avoid the possibility of having any stock left over, as was the case last year.

J. T. Anthony is going into orchids for cut flowers quite extensively. He has put in a large stock of plants of the kinds most useful for the production of flowers in winter. He has also gone heavily into palms and has worked up a large retail trade in these and similar decorative plants.

D. B. Fuller has purchased ten acres of land at Downer's Grove, where he will build a range of houses this summer.

The Florist Club has decided to make an exhibit as an organization at the World's Columbian Exposition of 1893.

At the last meeting of the Florist Club Mr. Alfred Saxen exhibited a good collection of pansies of excellent colors, and Mr. Joseph Curran a beautiful specimen of infant's cap. The latter was awarded a first class certificate by a unanimous vote, and an early adjournment was had to properly congratulate the exhibitor upon the event which had caused him to invest in the cap. It's a girl.

The Florist Club is the only organized body of horticulturists in the city of Chicago.

Messrs. Jas. D. Reynolds and J. C. Vaughan have returned from a trip through the east.

San Francisco.

There has never been such a year for outdoor roses. The amateur is in his glory and the recent flower show made it evident that the public interest in roses is very greatly on the increase, from San Diego and Los Angeles to San Francisco, and north to the state line. Ten years ago there were but one or two rose fairs a year in all California, but now almost every town of any size has its floral festival, where the chief display consists of roses. A single issue of one of the newspapers the other day contained notes about floral displays at Santa Paula,

Pomona, Riverside, Santa Cruz, Santa Barbara and San Diego. In all of these roses predominated.

The State Floral Fair, which has recently closed, contained great rose displays by E. Gill, one of the leading florists of Oakland, the Fruitvale Company, H. Greenough, the California Nursery Company, at Niles, John H. Sievers, and many others who are prominent in the trade.

Mr. Sievers' new rose, the "Rainbow," was shown in its full perfection. This rose is more likely to win general recognition than any other new California rose of recent years, owing to its superb shape and very unusual shade of color. The colored plates, although well done, do not begin to do it justice; the rose at once attracts the attention of every gardener, florist or amateur, and so far seems to hold its own, either singly or in masses, with all other roses grown on the Pacific Coast. It is a sport from Papa Gontier—the color comes nearest to being a light pink, shaded and splashed with darker color.

The conditions under which florists, seedsmen and nurserymen carry on their business in California are of course very different from those which prevail east of the Rockies. Many things are much easier to grow here and make much more rapid development. Of many of the hard wood shrubs, such as deutzias or snowballs, one can plant cuttings in open ground in February and have good plants fit for sale in November. A large number of kinds of roses can be handled in the same way. In fact, the use of glass for raising stock and for forcing flowers for a more steady winter supply used to be thought unnecessary in California, but of late years all the successful florists are extending their area of glass. There is not, nor ever will be, the same extent of trade in soft wood and bedding plants in California as there is east, for any one can grow them too easily. Where geraniums, heliotropes and all such plants grow "right along" all winter in the open air, the business of supplying "bedding plants" each spring is of course reduced to its smallest possible proportions.

On the whole, however, the florists do reasonably well here, as the growth in the number of establishments will show. In 1874 there were but thirty-three florists in San Francisco, and now there are seventy-two. All over the state the same proportionate development is manifest. The improvement in public taste during the past five years is still more marked; quality is more desired and better prices are paid. The daffodil, for instance, then very rare, has become the prime favorite for a spring flower; and the California wild flowers which no florist kept for sale five years ago, now fill large windows on the principal streets.

CHARLES H. SHINN.

The Fuchsia Beetle.

BY ERNEST WALKER

This is a shining black beetle with an iridescent lustrous about one-eighth of an inch long, which makes its appearance on fuchsia plants about this time in the year—coming in a great swarm in a single night. Their work is rapid and destructive.

The fuchsia is a plant with but little vitality to spare during the heat of summer, and if it is compelled to divide that little with this ravenous pest, there is indeed a small chance for their surviving the heated term.

Being of such a character these insects are rapidly telling on the florists' trade in fuchsias wherever they have made

their appearance two or more years in succession; for while the florist perseveres in spite of the odds, the amateur, his customer, gives up, deciding no more money shall go for plants with which she is sure to fail.

With the exception of arsenical preparations the writer has experimented with every insecticide, none of which have proved of value. One of the best methods of fighting the insects we found in hanging sticky fly-paper up behind the plants and scaring the insects from the opposite side. By repeating this operation every morning for a few days at intervals of a week or so we have in the past managed to save our stock plants.

This season we have decided to try growing our fuchsias under a wire cage guard, not planting the fuchsias out until the wire frame is ready and the plants can be placed securely within the protection all at once.

The insect has already made its appearance the present season at some other places around town, but none so far have been seen on any of our plants. This we attribute to our precaution of closing the ventilators at night upon the houses in which we have fuchsias.

From Prof. L. O. Howard, of the Division of Entomology, Washington, D. C., we learn that the insect is scientifically known as *Graptodera exapta* and that, in the larval state, it feeds upon the leaves of "Fire Weed" (*Erechtites hieracifolia*), and the "Evening Primrose" (*Oenothera biennis*). The swarms which suddenly make their appearance upon fuchsias in all probability develop among these plants, one or the other of which species will doubtless be found to be abundant wherever the fuchsia beetle proves troublesome.

New Albany, Ind., June 6, 1890.

Foreign Notes.

THE National Co-operative Flower Show of the Agricultural and Horticultural Association of London will be held at the Crystal Palace August 16. There are offered 825 cash prizes, in addition to silver and bronze medals and a champion gold medal. For the larger prizes the country has been divided into districts so that exhibitors from the north will not be obliged to compete against those from the south and vice versa.

A YELLOW CALLA.—Among the plants recently certificated by the Royal Hort. Society is *Richardia Elliottiana*. The leaves are spotted with white and the flower is yellow.

THE ANNUAL "Tulip festival" of the Royal National Tulip Society was held at Manchester, England, May 28. There was a gorgeous display of tulips in great variety.

THE RECENT Temple Show of the Royal Hort. Society was an unusually noteworthy event. It was probably the finest trade display ever seen in London.

ONE of the latest additions to English gardening appliances is a "fog annihilator." It is a new ventilator which has been devised with the object of excluding fog, soot and other atmospheric obstructions common to certain districts in England.

A RED *Nymphaea Zanzibarensis* is an aquatic novelty. It originated in the Botanic Gardens, Karlsruhe, and was obtained by crossing *N. Zanzibarensis* with *N. Lotus rubra*.

THE ENGLISH National Chrysanthemum Society's Centenary Festival will be held next November.

THE THIRD annual Covent Garden fete was held in the wholesale flower market, Covent Garden, London, May 21. The show of plants and flowers was unusually excellent, and the exhibition was visited by crowds of people. The proceeds went to the Gardeners' Orphan fund.

THE TWENTY-FOURTH great Whitsuntide Horticultural Exhibition of the Manchester Royal Botanical and Horticultural Society was opened May 23. There was a fine floral display which included all sections of plants in season and representations of the highest art of cultivation.

WHITE Zonal pelargonium Amy Applett is believed by an English grower to be one of the most valuable varieties in cultivation. The flowers are large, circular, pure white and last for a long time after being cut.

Frost did considerable damage in some parts of England about June 1.

THE CATERPILLAR of the Winter moth (*Chimantobia brumata*) is doing serious damage in English orchards and fruit gardens.

It is now proposed to form a federation of the numerous English Gardeners' Associations.

A PROJECT is on foot to build a large horticultural hall in London. The sum of \$60,000 has already been guaranteed.

THE ENGLISH government will be asked to assist in the establishment of an English School of Forestry.

THE ANNUAL dinner of the Nursery and Seed Trade Association took place at the Guildhall Tavern, London, May 28.

THE RECENT great Horticultural Exhibition at Berlin was a great success. The displays of decorative plants and orchids were especially praiseworthy.

FROM June 19 to July 22 inclusive over 30 rose shows will have been given in England.

THE Auckland Chrysanthemum Society of New Zealand, has affiliated with the National Chrysanthemum Society of England.

A FUND is being collected for a memorial to Rozel.

THE Agri-Horticultural Society of Madras, India, held its annual flower show in the Botanic Gardens, February 22. There were many exhibitors, both native and European.

It is proposed to hold a show of pinks at Manchester, England, July 19.

CHRYSANTHEMUM Grace Attick, an American raised seedling, was awarded a first class certificate by the Royal Hort. Society last September, and an English gardener thinks the award was well deserved.

ROSE THE QUEEN received a Horticultural Certificate at the exhibition of the Royal Botanic Society May 14. It is a pure white sport from Souv. d'un Ami.

Growing Pansies.

To grow these beautiful bedding plants to perfection requires some skill. Nearly every one can sow the seed and get fair to good plants, but when the plants are ready to transplant the work is only begun. How to have fine healthy plants when blooming is the subject of this article, as this is the great desideratum in pansy growing.

I have grown them in good rich soil with fair success, but this year I tried an experiment, with such success so far that I hasten to give it to the FLORIST, so that

others may if they wish try the same plan. For experiment I took a box about 14 by 16 inches and 2 inches deep, then got some fresh stable manure that had been spread on the garden and had received about two days rain on it and put it in the box and pressed it until I had one inch of pretty solid manure, then filled the box with good rich soil and set my plants in it. They did fairly well until the roots struck into the manure when all at once they took a start and in an incredibly short time I had a mass of rich bloom. During a recent hot dry spell I placed the box in the sun, where the air could pass freely around and underneath it and dry it out quickly, and even while undergoing this trying ordeal I only had to water them every other day to keep them in fine order.

For bedding in dry localities an excavation 6 or 7 inches deep may be made and filled to one inch of the top with spent hotbed manure (packed solid), on this place an inch of rich soil, set out your plants, water well until well started and watch the result. In moist localities a mound may be made if desired, but if so the soil underneath the bed should be dug or spaded deep before the bed is made, this will help to drain and also hold moisture; on this spread the manure as above 5 or 6 inches deep and proceed as above stated. ELLIS THOMPSON.

Burnside, Ky.

News Notes.

SACRAMENTO, CAL.—The California State Fair will be held in this city September 8 to 20 inclusive.

BEDFORD, MASS.—Temple & Beard, of Shady Hill Nurseries, Cambridge, have a large nursery under way here.

AURORA, ILL.—Hail—or rather chunks of ice—fell during a recent storm and smashed several hundred dollars worth of glass on the greenhouses of W. L. Smith.

SHIREMANSTOWN, PA.—Prof. Samuel B. Heiges, of York, Pa., and Henry S. Rupp and his son, Geo. H., of this place, will sail July 15 for a two months tour in Europe.

RALEIGH, N. C.—A destructive hail storm passed a little to the west of Shelby, N. C., the afternoon of June 13. The hail stones were two inches in diameter and greatly damaged crops.

TRENTON, N. J.—The third annual exhibition of the Inter-State Fair Association will be held here September 29 to October 3 inclusive. Premiums to the amount of \$355 are offered for plants, flowers and floral work.

WESTBURY, N. Y.—Mr. T. Griffin, of tuberous begonia fame, has been engaged as gardener to Adolph Ladenburg, Esq., and is now busy remodelling and extending the gardens. Particular attention is being given to hardy perennials.

HUNTSVILLE, ALA.—Mr. James R. Schrimshaw has created a deal of wooden ornamental rustic work in the pleasure grounds of Col. Jas. F. O. Shaugnessy. This work consists of bridges, fences, summer houses, gateways, gigantic plant vases and the like.

MILWAUKEE.—Ben. Gregory is building a new rose house. C. B. Whitnall & Co. are building a new fern house. The Wisconsin Florists' and Gardeners' Club at a special meeting June 24, passed resolu-

tions endorsing Jas. D. Reynolds of Riverside, Ill., for Commissioner of Horticulture at the World's Columbian Exposition of 1893.

ST. JOSEPH, MO.—A "rose ball" was a recent event in society circles. The staircase was covered with arches of roses; the mirrors in the ball room were curtained with roses; they hung from the ceiling and there were festoons of them from pillar to pillar; the ladies carried bunches of roses and the gentlemen wore roses in their button holes.

ST. LOUIS.—J. Juengel & Son had an unpleasant visitor in the shape of a hail storm which smashed about 3,600 square feet of glass on their greenhouses the afternoon of June 11. Covered by insurance in the Hail Association. No further serious losses are reported as no other greenhouses happened to lie in the track of the heaviest fall of hail.

NEW YORK.—Assignee Geo. W. Stephens filed the schedules in the general assignment made by William B. Scott, the florist of No. 407 Fifth avenue, June 14. The liabilities are \$5,879.33; nominal assets, \$3,658.82, and actual assets \$2,218.20. An importation of 300 Italian laurel trees consigned to R. F. Miller & Son arrived June 14, in perfect condition. The project of using the plaza of Union Square for a flower market is being vigorously agitated, a number of prominent people having interested themselves.

NEW YORK.—At Young's sale June 17, the following prices were realized: For 4-inch roses, Perle 24 cents, Meteor 16, Hoste 16, Duchess of Albany 31, Almet 25, Bride 25. For 3-inch roses: Gontier 11 cents, Hoste 9, Wootton 7, Niphetos 17, Mermet 14, Bride 13, Duchess of Albany 14, Watteville 6. The high prices for some of the above items were the result of active competition from private buyers through their gardeners, who were not limited as to prices. The prices realized on palms were quite satisfactory, except on a very few extra large specimens.

DOYLESTOWN, PA.—A heavy hail storm the evening of June 11 broke most of the glass on all the greenhouses in this vicinity. Some of the hail stones measured three inches in diameter and double as well as single thick glass was smashed. The damage to young roses and other plants was serious. The sufferers are: John T. Smith, five houses 225x18, one half of glass broken, John E. Andre, four houses 125x16, total wreck, insured; Fred Whalton, five houses, total wreck, no insurance; E. D. Darlington, six houses, about one half of glass gone, no insurance; L. Clements, two new houses 150 feet long, about one third of glass broken.

PROVIDENCE, R. I.—The display of flowers at the June exhibition was better than anticipated, eleven tables being required. The committee on roses awarded the following prizes: Best collection named varieties, N. D. Pierce, Jr., \$10; 2d, Roger Williams Park, \$5. Best 20, not less than 10 distinct varieties of any kinds, Roger Williams Park, 1st \$5; N. D. Pierce, Jr., 2d \$3. For best 6 different varieties of any kind, Silas H. Manchester, \$3; 2d, Roger Williams Park, \$2. Best 3 distinct varieties of any kind, C. C. Nichols 1st, \$2; Roger Williams Park 2d, \$1. Best specimen bloom of named new variety, John T. Frost 2d. Best display of moss roses in baskets or clusters, N. D. Pierce, Jr., \$3; Anna M. Lewi, 2d \$2. Basket of

flowers loosely arranged upon their own stems, William A. Appleton, Jr., 1st \$5; 2d, Miss A. A. Temple, \$3.

LOUISVILLE, KY.—The spring plant sales are over here and the florists say their trade was about 25 per cent larger than last year. All have done well and are cleaning out their houses and getting things in shape for another season. The school commencements have brought the usual rush of work for the florists. A decoration arranged for a wedding at Frankfort, Ky., by florist S. J. Thompson of this city, consisted of a large canopy suspended from the ceiling in the double parlors, with a curtain of smilax back of it measuring 10x10 feet. Back of all was a screen of smilax and on either side of the curtain were placed palms and other decorative plants. The edge of the supper table was festooned with smilax while through the center were low vases of roses. Through the parlors baskets of roses were placed at advantageous points. The chandeliers were also festooned with smilax.

WASHINGTON.—The meeting held in the reception room of the gardeners' headquarters at the Botanical Gardens, under the auspices of the Florists' Club, to consider the best means of providing a suitable building for a flower market, separate from the Center market, was largely attended by the florists and gardeners of this city and vicinity. A bill was prepared authorizing the Washington Market Company to erect a building on the reservation immediately north of the market between 7th and 9th streets, which would when completed be about the width of and conform to 8th street, the same to be used exclusively as a flower market. The Florists' Club has filed a certificate of incorporation. Messrs. Lonsdale and Meehan, of Philadelphia, were in the city June 20 inspecting the shrubbery of the Agricultural Grounds and other public parks, with a view it is said of noting, in the interests of nurserymen generally, the adaptability of certain foreign varieties for culture in this latitude.

Coming Exhibitions.

June 24—25, Boston.—Rose and straw berry exhibition Mass. Hort. Society.

August 19—22, Boston.—Annual exhibition Mass. Hort. Society.

October 28—Nov. 1, Atlanta, Ga.—Chrysanthemum show, Piedmont Exposition Co.

November 4—6, Orange, N. J.—Chrysanthemum show, New Jersey Floricultural Society.

November 4—6, London, Ont.—Chrysanthemum show, Forest City Florists' and Gardeners' Society.

November 4—7, Chicago.—Chrysanthemum show, Chicago Florist Club.

November 4—7, Erie, Pa.—Chrysanthemum show, Erie Chrysanthemum Club.

November 10—14, Philadelphia.—Chrysanthemum show, Penna. Hort. Society.

November 11—13, Boston.—Chrysanthemum show, Mass. Hort. Society.

November 11—13, Montreal, Canada.—Fall show Montreal Gardeners' and Florists' Club.

November 11—15, Cincinnati.—Chrysanthemum show, Cincinnati Florist Club.

November 11—15, Indianapolis.—Chrysanthemum show, Society of Indiana Florists.

November 12—13, Worcester, Mass.—Chrysanthemum show, Worcester County Hort. Society.

November 20—, New York.—Exhibition New York Florist Club.

SITUATIONS, WANTS, FOR SALE.

Advertisements under this head will be inserted at the rate of 10 cents a line (seven words) each insertion. Cash must accompany order. Plant advts. not admitted under this head.

SITUATION WANTED—On commercial place, by first-class man. Good references. Address C. R. care American Florist, Chicago.

SITUATION WANTED—As rose grower and propagator of general florists' stock. Married. Address C. R. care American Florist, Chicago.

SITUATION WANTED—As gardener or florist in private or commercial place. References; single; age 25. Address GARDENER, American Florist, Chicago.

SITUATION WANTED—By a German, 24 years of age; single; experienced in all branches, cut flowers and nursery, either commercial or private. Address FLORIST, Box 5 Haystack, Ill.

SITUATION WANTED—By an Englishman, age 25. Well versed in orchids, stove and greenhouse plants. Orchids a specialty. Excellent references. If S. care American Florist, Chicago.

SITUATION WANTED—By a practical gardener S and florist, competent in all branches; commercial or private. Roses, carnations, violets a specialty. W. G. 313 Meeker Ave., Brooklyn, E. D. N. Y.

SITUATION WANTED—By a young practical gardener, well up in the different branches of gardening, good propagator. Sober and steady. Private or commercial. Address N. care Am. Florist.

SITUATION WANTED—By a practical gardener S and florist. Single. German. Long experience in all branches. Only a first-class private place wanted. Address FLORIST, P. O. Box 253 Marysville, Marshall Co., Kan.

SITUATION WANTED—By a first class American gardener, age 25, married, one child; have had 10 years experience in the business and can take charge of nursery or commercial place. Good references. Don't answer unless you can give fair salary. Address CONN. care American Florist.

SITUATION WANTED—By a single florist and gardener, many years' experience in the Continent and England. Perfect in rose growing, carnations and all kinds of cut flowers for market. Making up designs a specialty. Best references. Ad. G. R. 211 Neville Road, Upton Park, Essex, England.

WANTED—500 ft. 4-in. second-hand pipe. Address ARTHUR ELLIOT, Baraboo, Wis.

WANTED—A good second hand automatic steam boiler to heat about 6,000 feet of glass. GEO. HINMAN, Atlanta, Ga.

WANTED TO RENT—3 or 4 greenhouses in Chicago. State rent wanted. Address A. H. care American Florist, Chicago.

WANTED—Fl. list. one who has a general knowledge of growing for the cut flower and p. ant trade. Good references required. Address J. A. PETERSON, 41 W. 4th St., Cincinnati, O.

WANTED—A good young man single, for general greenhouse work. Must understand growing of plants and cut flowers. Address A. BARN, Euclid and 15th St., Kansas City, Mo.

WANTED—Catalogues of all kinds of florists' and nurserymen's supplies. Also an offer of a second-hand boiler for greenhouse. Send to TH. VANDERBEEK, Florist, Eagle Street, Dunkirk, N. Y.

WANTED—At once, a good florist and gardener, with about \$100 or \$500 cash, as partner. Splendid location, no opposition, greenhouses, sashes, team, etc. furnished. A reference is offered. Address J. K. care American Florist, Chicago.

WANTED—A good commercial florist to take the general management of 10,000 feet of glass, 10 acres of ground, must be capable to manage 20 men with economy, and grow flowers for our retail store. Salary \$1,000 to \$1,200. Give address JORDAN FLORAL CO., 705 Olive St., St. Louis, Mo.

WANTED—An active partner with some capital, in the most promising nursery in the South. Business established, with more work than one man can attend to. The best of references and open to the fullest investigation. Address MR. HOYT, 18 Broadway, New York City.

WANTED—For commercial place, a good florist, must be good propagator, grower of plants, roses, cut flowers, bedding and vegetable plants for market, and make up designs and bouquets; state age, experience and references. Address M. BULL, Ft. Rouge Greenhouses, Winnipeg, Man.

WANTED—For commercial place, a good florist, one who has had experience in growing roses, cut flowers and bedding plants and some knowledge of making up designs and bouquets; a young single man who is willing to work, must have good references, good wages paid. Address WETLIN, the florist, Hornellsville, N. Y.

FOR SALE—Florist business in a lively town of 15,000 inhabitants, 5,500 feet of glass, beside the hotbed sash; steam heat, city water; houses in good repair, and well stocked. Must be sold by July 1st. Address MRS. GEO. LOW, 818 South First Street, Stillwater, Minn.

FOR SALE—Weathered boiler No. 4, \$85, in good order, never dried hard. R. MAX & SON, Lansing, Mich.

FOR SALE—Greenhouse, with or without house and lot, doing good business, no opposition. Address L. R. TERRY, Hudson, Mich.

FOR LEASE—Three greenhouses 50 feet long with 3 acres of land on railroad, 10 miles from Cincinnati. Possession given at once. Address W. CHAPMAN, Glendide, Ohio.

FOR SALE CHEAP—Small greenhouse, no dwelling attached. Business good; no competition. My reason for selling is that I am going away. Address E. HITCHCOCK, Lamar, Mo.

FOR SALE—Florist business; city 30,000 inhabitants. Splendid retail trade in and out of city. Well stocked and equipped. For reasons and particulars, address OHIO, care American Florist.

TO LET—Five greenhouses, about 5,000 ft. of glass, with cottage and 5 acres of land—more land available for truck gardening if desired. Houses specially adapted for violets. Stock of violets to fill houses at low price. DUTCHESS NURSERIES, Poughkeepsie, N. Y.

FOR SALE.

No. 2 Smith boiler, new last Oct.; No. 4 Weathered, 3 years in use; both warranted sound. Also 700 ft. 4-in. pipe—within 50 yards of cars. Apply to

WALTER BUTLER, So. Framingham, Mass.

A RARE CHANCE.

General florist's business MUST be sold quickly. Fine retail trade at home and abroad. Well located in a city of 30,000 inhabitants. Everything in operating order, and well stocked. A BARGAIN. Good reasons. Address

"OHIO," care American Florist.

FOR SALE.

A great opportunity. A first class florist business consisting of about two acres more or less of very rich ground, thirteen seven greenhouses, about 1,000 feet of glass, five are heated by steam and two by flues, 100 hot bed sash, good dwelling, inexhaustible water, two wells and tankage, pipe for distributing new wind mill fixtures complete. For particulars send for pamphlet and front and rear views of place. A good reason for selling will be furnished on application. Address M. TRITSCHLER & SON, Nashville, Tenn.

Roses. Roses.

Superb plants from 4-inch pots of Catherine Mermet, Niphetos, Bride, Safrano, Papa Gontier, Etc., Etc. Price \$10.00 per hundred.

ELLWANGER & BARRY, 50th Year. Mount Hope Nurseries, ROCHESTER, N. Y.

DUCHESS OF A BANY.

In 2, 3 and 4-inch.

MADAM HOSTE, in 2½ and 3 inch.

Also the Leading Forcing varieties, in 3-inch, strong plants for immediate use. SEND FOR LIST.

ADIANTUM CUNEATUM. The popular var. for frond cutting, fine seedling plants. If you use any quantity, either large or small, it will pay you to correspond with me.

M. A. HUNTER, TERRE HAUTE, IND.

CUTTING ROSES.

5000 PERLE DES JARDINS,	2500 PAPA GONTIER,
6000 CATHERINE MERMET,	1000 SOUVENIR DE WOOTTON,
5000 NIPHETOS,	1000 MME. CUSIN,
2000 SUNSET,	5000 LA FRANCE,
6000 THE BRIDE.	

2½, 3 and 4-inch pots; A No. 1 plants, in healthy condition.

—WRITE FOR PRICES.—

THE B. A. ELLIOTT CO., PITTSBURG, PA.

FOR SALE.

Astoria Nurseries, Astoria, N. J. Having purchased the larger part of the stock of Wm. C. Wilson, and wishing to reduce same preparatory to moving to a new location, offer bargains in all varieties of plants. Heading apparatus and greenhouse fixtures also for sale.

PIPE AND BOILERS FOR SALE. We still have left some Hitchings 4-in. diam. 9 ft. pipe at 3c. per foot; also 5 ft. pipe, 4-in. diam. at 7c. per ft. in good order. One Hitchings No. 17 and several Meyer's best chimes. Write for prices.

THE FLORAL EXCHANGE.

614 Chestnut St., Philadelphia, Pa.

ROSES.

Per 100 Per 1000

Jacks, Perles, Mermet, Papa Gontier, Niphetos, La France, Cook, Sunset, Safrano, S. D. Ami, Bon Siene, Bride, strong plants, 2½-in. pots.....	\$ 5.00	\$45.00
5-in. pots.....	8.00	75.00
Sonv. de Wootton, 2½-in. pots.....	8.00	
5-in. pots.....	12.00	
Smilax, strong, 2½-in. pots.....	5.00	25.00
Celery, transplanted, leading sorts.....	5.00	4.00

WOOD BROTHERS,

(Successors to I. C. WOOD & BRO.,) FISHKILL, N. Y.

ROSES.

A very large stock of young Roses of the leading bedding and forcing varieties. Also large stock of same in 5 and 6-inch pots.

The best and newest of CHRYSANTHEMUMS, CARNATIONS and general greenhouse stock. Trade list mailed on application.

JACOB SCHULZ, Louisville, Ky.

IMPORTED H. P. ROSES,

Worked low on the Manetta Stock, offer the best results to the florist, blooming freely and giving plenty of cuttings for propagating quickly. Fine plants for sale by the 100 or 1000 at low rates.

Price lists to applicants. Address

WILLIAM H. SPOONER, JAMAICA PLAIN, (Boston), MASS.

ROSES**AND OUTDOOR BEDDING STOCK.**

Good strong 2-inch plants, in leading varieties of TEAS, HYBRID TEAS and NOISETTES, true to name and good varieties. \$4.00 per 100; \$10.00 1000. Our selection. Per 100

DUCHESSE OF ALBANY, 2-in.	\$12 00
MADAM HOSTE, 2-in.	\$7 per 100; 3 in. 10 00
AM. BEAUTY, 2-in.	\$8 per 100; 3 in. 12 00
SOUVENIR DE WOOTTON, 2-in.	6 00
LA FRANCE, 2 in.	\$5 per 100; 3 in. 9 00
PAPA GONTIER, 2 in.	\$4 per 100; 3 in. 8 00
PERLE DES JARDINS, 2 in.	\$4 per 100; 3 in. 8 00
NIPHETOS, 2-in.	\$4 per 100; 3 in. 8 00
MERMETS, 2-in.	\$4 per 100; 3 in. 8 00
BRIDES, 2-in.	\$4 per 100; 3 in. 8 00
BON SILENE, 2-in.	\$4 per 100; 3 in. 8 00
HYBRIDS, budded, good varieties, \$3 per doz.	
BALTIMORE BELLE, strong, 4 in.	8 00
GEN. JACK, 2 in.	per 1000, \$40; 5 00
GERANIUMS, good vars. single and double.	3 00
ROSE GERANIUMS	3 00
FERNS ADIANTUM CUNEATUM and ADIANTUM DECORUM, from 4-in. pots at	10 00
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FUCHSIAS, good varieties	3 00
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PETUNIAS, double, 12 varieties	4 00
DAHLIAS, 10 varieties	4 00
HYDRANGEA THOMAS HOGG and HORTENSIS	4 00
H. PANICULATA GRANDIFLORA strong, 2½-in.	4 00
" " 4-inch	10 00
IPOMÆA NOCTIFLORA and LEARII	4 00
ALTERNANTHERAS, 3 vars.	\$20 per 1000, 2 50
PHLOX, 4 varieties	4 00

Special prices given on large quantities.

GEO. W. MILLER,

1748 N. Halsied St., CHICAGO.

ROSES.

Mermet, Bride, Niphotos,
Sunset, Bon Silene, Wootton.

Very handsome plants, from 4-inch pots, at low prices.

WM. J. STEWART,
67 Bromfield Street,
BOSTON, MASS.

SURPLUS STOCK.

800 Perles, 1500 Brides, 350 Gontiers,
\$1.00 Per Hundred.

Extra strong, healthy plants, 2½-inch pots. Also 300 Mermets slightly mildewed, \$3.00 per hundred.

FAUST & BRO.,

MARION STATION, PA., Penn R. R.

ROSES.

Orders taken for the following varieties, 3 and 4-inch pots:

PERLE, NIPHETOS,
SOUV. LA FRANCE,
BRIDE BENNETT,
WOOTTON.

Clean, healthy stock. Wholesale trade list free upon application.

GERMOND & COSGROVE,

Box 60, SPARKILL, Rockland Co., N. Y.

ROSES IN 3-INCH POTS.

Perles, La France, Niphotos, at..... \$1.00 per 100

ROSES IN 2½-INCH POTS.

Niphotos, Bon Silene, Mermet and Bride, \$1 per 100.

SILKAX, strong plants..... \$30 per 100

THE FLORAL EXCHANGE.

614 Chestnut St., Philadelphia, Pa.

C. M. PRESBY.

JOHN HENDERSON CO.,

Flushing, L. I.

ROSES A SPECIALTY. ROSES.

THE CLIMBING PERLE DES JARDINS.

TO OUR PATRONS, AND THE TRADE GENERALLY:—We are convinced that this Rose will prove of permanent value—indoors and out. Its continuity of flowering, vigorous growth, large flowers, beautiful in color and form—a true Tea—must commend it to all.

Strong plants Ready April 1st, \$1.00 each; \$10.00 per dozen.

All the Old, New and Forcing varieties on hand, at lowest prices.

WRITE FOR CATALOGUES AND PRICES.

THE OAKS ROSE NURSERIES

ROSES.

Meteor, Mme. Cusin, Perles, Niphotos, Mme. de Watteville, Papa Gontier, Mermets, Magna Charta, and Gen. Jacqueminot.

CARNATIONS.

Hinsdale, May Queen, Orient, Silver Spray, Paxton and Buttercup.

Strong healthy plants at lowest prices. Write for particulars.

JOHN H. TAYLOR,

BAYSIDE, L. I., N. Y.

FORCING ROSES.

American Beauty,
Brides,
Clotilde Soupert,
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Duchess of Albany,
La France,
Madam Watteville,
Madam Falcot,

Sunset, Wootton.

Madam Hoste,
Meteor,
Perle,
Papa Gontier,

3 Best H. P. Roses.

MAGNA CHARTA, GENERAL JACQUEMINOT, ULRICH BRUNNER.

All in 2½ and 4-inch pots. Write for prices.

L. HARRISH ready July 10, at best rates.

FREESIA BULBS now ready.

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ROSE * PLANTS.

Extra Fine Stock for Forcing

Lowest prices. All two-eyed cuttings, from 2½ & 3-in. pots,

\$5.00 TO \$8.00 PER 100.

Perle des Jardins, Niphotos, Catherine

Mermets, Brides, Papa Gontiers.

THE FOREST GLEN FLORAL CO.,

MAIN OFFICE:

173 Wabash Ave., CHICAGO, ILL.

ROSES.

We offer for sale 1000 first quality Roses grown from two eyed cuttings. They are in fine condition for immediate planting.

Perles, Mermets, Brides, Niphotos, Salsrano and Bon Silene.

Price, 3-inch pots, \$7.00 per 100. 4-inch pots, \$10.00 per 100.

SOUVENIR DE WOOTTON, 3-inch pots, \$12.00 per 100. 4-inch pots, \$15.00 per 100.

PAPA GONTIER and LA FRANCE, 3-inch pots, \$8.00 per 100. 4-inch pots, \$12.00 per 100.

SILKAX. Fine, vigorous plants, from 2½-inch pots, \$2.50 per 100; \$30.00 per 1000.

J. L. DILLON, BLOOMSBURG, PA.

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Cash with Order.**No Special Position Guaranteed.**

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No reduction made for large space.

The Advertising Department of the AMERICAN FLORIST is for Florists, Seedsmen, and dealers in wares pertaining to these lines ONLY. Please remember it.

Orders for less than one-half inch space not accepted.

☛ Advertisements for July 15 issue must REACH US by noon, July 9. Address

THE AMERICAN FLORIST CO., Chicago.

THE FLORISTS' CLUBS.

The rapid increase in the number and membership of these organizations is cause for congratulation, for the good accomplished by them can hardly be estimated. This is apparent to any one that has ever been connected with them, except to that unfortunate individual who is blind because he will not see.

The clubs have not succeeded in reconciling all past differences between members, they have not succeeded in bringing the whole trade in any city together to form one happy family, they have not brought about the millennium; but they have succeeded in softening many of the old asperities, in bringing to the surface good fellowship which had before been repressed, and in very materially strengthening the bond of union between members of the craft, which has been far too frail for the general good. Where these clubs exist there is much less of that bitter, unreasoning, cut-throat competition which had before prevailed and which does so much to lower the standard of the trade.

Form a club in your city if none already exists, but don't imagine that it is going to run itself after it is organized. There will be work to be done, and somebody has got to do it. But if all this labor should fall upon but a few, they will find that they are so well repaid by the benefits which accrue to them individually that they can well afford to make a present of their labor to other members rather than lose their own share by remaining inactive. Don't wait for some one else to start the ball to rolling—do it yourself.

THE WORLD'S COLUMBIAN EXPOSITION.

It is time that the florists, nurserymen and seedsmen of America began to consider ways and means to make their display at the Columbian Exposition of 1893 a credit to the trade and to America, for the success of the department of ornamental horticulture will certainly rest largely with them.

What shall we show the visitors and how shall it be shown? are questions which it is not too early to consider. Unquestionably a large percentage of the visitors will come from the various countries of this continent, but there will also be a considerable number from over the seas. And we must show both these classes a full and complete collection of the items which go to make up the trade in America. How shall this best be done? How shall we provide against the omission of any detail? What will you do as your share of the work? What will you exhibit?

And how shall the space allotted to the department of ornamental horticulture be arranged? Shall it be arranged by

states or according to the class of exhibits? Shall it be an aggregation of small divisions or shall it be arranged so as to form one harmonious whole? Shall the arrangement be formal or in as natural a style as possible with such a varied assortment of material?

Let us have a general discussion upon these points in the hope that ideas may be advanced which will prove valuable to those upon whom the execution of the work may devolve. Reduce your thoughts to writing and send them in.

THE HORTICULTURAL DEPARTMENT AT THE WORLD'S FAIR.

That the Department of Horticulture in the coming World's Fair be given the relative importance which it merits must be the desire of all in the trade. Those best acquainted with the results at Philadelphia in 1876, agree that no such opportunity for florists has existed in this country before or since, and that the coming Fair at Chicago is sure to be of great benefit to the entire trade. With this view it is highly desirable that ample provision be secured for this department from the commissioners, and now that they have assembled and a permanent organization with sub-committees will soon be appointed, would it not be well for those interested in our horticultural success and acquainted with these commissioners, to write them in care of the World's Fair headquarters, Chicago, urging that the Horticultural Department be made an important feature? We give the names of these commissioners in another column. Having secured, as we believe we must, ample space from the commissioners, and a liberal appropriation, it becomes important that the superintendency of that department be given to one who has the confidence of the trade, rather than to some politician who may or may not be in sympathy with the horticulturists and who certainly can not have the influence with the trade at home or abroad, and which will be so necessary to its final success, as can be expected from a man who is identified with the business.

FOR HORTICULTURAL COMMISSIONER.

Since the location of the World's Fair at Chicago, the Chicago Florists' Club has nominated Mr. James D. Reynolds for Horticultural Commissioner, believing that success in this direction depended on having a competent man on the ground from this time on. This action has been endorsed by the American Nurserymen's Association, by the American Seed Trade Association, and by various local clubs and individuals prominent in horticultural circles throughout the country. It is generally known that Mr. John Thorpe received the endorsement of the Society of American Florists last summer at Buffalo, but at the same time it was considered then a certainty that the fair would go to New York. Mr. Thorpe's interests there, would if he came to Chicago, be sacrificed, and he has, we understand, stated that he should decline the candidacy in favor of Mr. Reynolds, at the same time indicating a willingness to assist and advise whenever the time comes for active work, thus giving the department at the most important time the benefit of his wide experience in exhibitions, in the position of consulting expert. Those disposed to endorse Mr. Reynolds would do well to mention his name when writing to any of the commissioners.

World's Fair Commissioners.**COMMISSIONERS-AT-LARGE.**

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Ohio—Wm. Ritchie, Hamilton; Harvey P. Platt, Toledo.

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 John L. Mitchell, Milwaukee.

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 Oklahoma—John C. Miles, Kingfisher;
 Othniel Beeson, El Reno.
 Utah—Patrick H. Lammon, Salt Lake City;
 Frederick J. Kiesel, Ogden.
 Wyoming—Asabel C. Beckwith, Evans-ton;
 Henry G. Hay, Cheyenne.
 District of Columbia—A. T. Britton,
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 20 West 24th Street,
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LILY OF THE VALLEY,
 And the Choicest **ROSES** for the
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 Orders to be shipped will receive prompt attention.

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Cut Flowers.

BOSTON, June 25.	
Roses, Tea	\$1.00
" Niphetos, Perles, Sunsets	1.00
" Mermets, Brides	4.00 @ 6.00
Jacqs.	2.00 @ 8.00
Carnations	50 @
Stocks	2.00
Spiraea	1.10
Penzance	1.00
Valley	4.00
Smilax	1.50
Adiantum	1.00
Pink pond lilies	8.00
PHILADELPHIA, June 25.	
Roses, Hybrids	\$10.00
" Beauties	10.00
" Mermets, Brides	6.00
" Perles, Niphetos, Cousins	5.00
" Woollons, Bennetts	3.00
Carnations, long	4.00
Carnations, short	1.10
Gladioli	6.00
Valley	4.00
Water lilies	50 @ .75
Pink water lilies	10.00
Smilax	20.00
Adiantum	1.00
NEW YORK, June 25.	
Roses, Bon Silene	\$1.00
" Gontiers	1.10 @ 2.10
" Perles, Sunsets	3.00 @ 4.10
" Niphetos	3.40
" Mermets, Albany	4.00 @ 5.00
" Waterlilies, Brides	5.10
" Cousins	4.10
" La France, Hostes	5.10
" Bennetts, Cousins	2.10
" Beauties, Hybrids	15.10
Smilax	10.00 @ 15.00
Carnations, long	10.00
Mignonette	50
Adiantum	1.00
CHICAGO, June 27.	
Roses, Perles, Niphetos	\$4.00 @ \$5.00
" Gontiers	3.00 @ 4.00
" Bon Silene	1.50 @ 2.00
" Mermets, La France	5.00 @ 6.00
" Brides	6.00 @ 7.00
" m. Beauties	8.00
" Jacqs	8.00 @ 10.00
" Bennetts, Dukes	4.00 @ 5.00
" Carnations, short	75 @ 1.10
" Carnations, long	1.00 @ 1.50
" Carnations, long, fancy	2.00 @ 2.50
" Callas	8.00 @ 10.00
" Smilax	16.00 @ 20.00
" Valley	2.00 @ 3.00
" Tuberoses	1.00 @ 2.00
" Fancies	5.
" Peonies	4.00 @ 5.00

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Cut Flowers & Florists' Supplies

WHOLESALE
 67 Broomfield St., BOSTON, MASS.

GEO. MULLEN,
WHOLESALE FLORIST,
Florists' Supplies Always in Stock.
 17 CHAPMAN PLACE,
 (Off School St., near Parker House),
BOSTON, MASS.

Orders by Mail, Telegraph, Telephone or Express promptly filled.

WELCH BROS.,
WHOLESALE FLORISTS,
 165 Tremont Street, BOSTON, MASS.
 We make a specialty of shipping choice Roses and other Flowers, carefully packed, to all points in Western and Middle States.
 Return Telegram is sent immediately when it is impossible to fill your order.

N. K. McCARTHY & CO.
WHOLESALE FLORISTS
AND JOBBERS IN FLORISTS' SUPPLIES,
 1 Music Hall Place, BOSTON, MASS.
 Also entrance from Hamilton Place through Music Hall.

We keep a large supply of Fancies and Carnations always on hand. Return telegrams sent immediately when unable to fill orders.

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 Telephones 977 and 999.
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CUT FLOWER DEPT.

Our stock is cut with special reference to shipping trade, which comprises the greater part of our business. We therefore claim that we are better prepared to attend to the wants of **FLOWER BUYERS**, outside of Chicago, than any house in the West.

OPEN DAILY: Week days till 9 P. M.
 Sundays till 2 P. M.

KENNICOTT BROS.,
WHOLESALE FLORISTS,
 27 Washington Street, CHICAGO.

We always have choice, Fresh Cut Flowers in season. The best packers in the trade. Orders promptly shipped. Store open until 9 P. M. Sundays until 2 P. M.

WIRE WORK A SPECIALTY.
 Extra designs made to order. Write for price list.
 Consignments Solicited. Telephone 406.

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I keep a full stock of
WIRE DESIGNS
 of superior workmanship and at lowest prices. Extra pieces of any description made to order on short-est notice. Send for Catalogue.
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Florists & Commission Merchants
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 1237 Chestnut Street, PHILADELPHIA.
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Commission Dealer in Cut Flowers,
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Quick sales and prompt returns guaranteed. Consignments solicited.
CUT FLOWERS
 The choicest Cut Flowers at lowest market rates shipped C. O. D. Telephone connection. Use A. F. Code when ordering by telegraph. For prices, etc., Address:
J. L. DILLON, BLOOMSBURG, PA.

SURPLUS STOCK.		Per 100
2000 Yerssaffelt, 24-in.	\$ 2 00
2 00 J. G. G. 24-in.	2 00
1000 Chrysanthemums, 24-in.	2 00
2000 Coleus, mixed, boxed	1 00
200 Smilax, 24-in.	2 00
200 Dracena, 4-in.	15 00
500 Tea Roses, 24-in.	3 00

Will exchange for 2-year old Jack Rose.

W. W. GREENE, SON & SAYLES,
 WATERTOWN, N. Y.

Catalogues Received.

Peter Henderson & Co., New York, quarterly wholesale list for florists; same for market gardeners; H. H. Sanford & Co., Thomasville, Ga., plants and nursery stock; James Veitch & Son, Kings Road, Chelsea, England, plants; R. Van der Schoot & Son, Hillegom, Holland, Dutch bulbs.

OTTAWA, ONT.—At the monthly meeting of the Gardeners' and Florists' Club held June 12 it was decided to offer a prize of \$10 for the best display of fruit at the coming exhibition. A committee is making arrangements for new rooms for the club. Resolutions of condolence on the death of the wife of Mr. McCann, a member of the club, were adopted. An address on the summer blight of apples was delivered by Mr. Greenfield, of Archfield.



If you would have "good luck" with your forcing stock, try

GARDINER'S.

Send a list of your wants, stating kinds and quantities, for estimate.

JOHN GARDINER & CO.
PHILADELPHIA.

R. VAN DER SCHOOT & SON,
HILLEGOM, HOLLAND.

LARGEST GROWERS OF

HYACINTHS, TULIPS, NARCISSUS, SPIRÆA, LILIES
OF THE VALLEY, ETC.

Headquarters for Forcing Bulbs. Wholesale Importers should write us for prices.

Our new Bulb Catalogue is now ready. Will be mailed free on application.

PRIMROSE SEED.

The finest strains of Chinese Primroses.
FIFTEEN COLORS.

Packets containing 400 seeds of the best selling kinds, specially for florists. Price per pkt. \$1.00. Circulars telling how to grow primroses and prices of each variety free. Address
HENRY S. RUPP & SONS, Shiremansdown, Pa.

Bulbs! Bulbs! Bulbs!

We beg to offer the following Bulbs for Early Forcing :

LILIUM HARRISII.....	5 to 7 inches in circumference
LILIUM HARRISII.....	7 to 9 " " " "
CALLA ÆTHIOPICA.....	First Size
CALLA ÆTHIOPICA.....	Second Size
FREESIA REFRACTA ALBA, ETC., ETC.	SPECIAL PRICES ON APPLICATION.

SEEDS FOR PRESENT SOWING.

Extra choice strains of Primula Chinensis, Calceolaria, Cineraria, Pansy, etc., 50¢. and \$1 per pkt. An extra selected strain of Highland Mary Pansy, very fine, per pkt. \$2

DAISY Bellis Perennis fl. pl.....	} 50 cts. per packet.
" " " " Alba.....	
" " " " Longfellow.....	
" " " " Snowball.....	

V. H. HALLOCK & SON,
QUEENS, N. Y.

V. H. & Son beg to state they always have a number of first-class gardeners' names on their books waiting for situations, and would be glad to hear from anyone requiring same.

ADOLPH D'HAENE,
Ghent, Belgium,

OFFERS HIS EXTENSIVE STOCK OF

Azalea Indica,

Azalea Mollis,

Azalea Pontica,

Rhododendrons,

Camellias,

Orchids,

PALMS, DRACAENAS, ETC.

Catalogues mailed free on application.

Represented by **W. P. BARNAART,**
91 Front Street, NEW YORK.

VICTORIA REGIA.

We have a few more strong, healthy plants in pans to dispose of. These will bloom this summer.

ALSO ALL OTHER AQUATIC PLANTS.

SIEBRECHT & WADLEY,

Rose Hill Nurseries,

NEW ROCHELLE, N. Y.

DAFFODILS. DAFFODILS.
(CONFERENCE SORTS.)

Illustrated Drawings (book shape) from nature, by Gertrude Hartland, of over 30 finest sorts. The book which is copyrighted is put up specially as a TRADE REFERENCE; finished in the most perfect style, toned paper, gilt edge, etc., and the drawings are considered the most faithful representations published in Europe. Copies mailed, post-paid to the United States on receipt of postal order for One Shilling and Sixpence. This will include a separate wholesale list of forcing sorts, for a guaranteed July and August delivery, direct from Liverpool.

WM. BAYLOR HARTLAND, Seedsman,
24 Patrick St., CORK, IRELAND.
Daffodil grounds (10 acres) ARD CAIRN, CORK.

Florist Bulbs and
CUT FLOWERS.
THE WISCONSIN FLOWER EXCHANGE,
133 Mason Street, MILWAUKEE, WIS.

SMILAX.

Fine young plants, \$2.00 and \$3.00 per 100; \$15.00 and \$25.00 per 1000.

F. A. BALLER,
BLOOMINGTON, ILL.

SMILAX.

Fine, strong plants several times cut back, from 2 1/4-inch pots, \$2.00 per 100; \$18.00 per 1000, 50¢ at 1000 rates.

THEO. BOCK,
Cor. 10th and Heaton Sts., HAMILTON, O.

The Amateur's Lament.

Before I made my garden I was a happy man,
I read flow & Windy's catalogues and joyfully
would plan
How lots of sundries vegetables I easily could
raise,
And figured out the profits Windy says a garden
pays.

Of patent fertilizers, fancy garden tools and seeds,
I bought about as many as a western farmer
needs,
I hired men to help me and rising with the lark,
I dug till time for business and finished in the
dark.

After I made my garden I was a woful man,
The chickens scratched my pretty beds, the dogs
upon them ran;
The cats pitched battles on them fought, the
coats ate all my corn,
And a hog that tried to bite me always rooted
there at morn.

Then came a drought that burned to dust my
garden; then a flood
And pelting hail and hurricane turned every-
thing to mud;
Then like the plagues of Egypt, swarmed upon
me flies and bugs,
Inch worms, moles, cat worms, locusts, cater-
pillars, crows and slugs.

With paris green, tobacco, su'phur, soot and
hellebore
I dosed that insect army, but they only cried
for more;
I sp-iled my clothes and patience in the blazing
sun and rain,
And got myself so dirty that I always missed
the train.

All summer long I wrestled, while my perira-
tion drops,
I think, would fill the barrels I had ready for
my crops;
And though I wasn't able to supply one dinner's
needs,
I took the prize of champion for raising famous
weeds.

—*Peoria (Ill.) Call.*

NARCISSUS.

An immense collection and an enormous stock
of all the leading varieties, especially of those
adapted for forcing. Many acres are now in
flower, and I expect I shall have at least

A MILLION

of fine forcing roots to offer this season, and shall
be pleased to give prices for any variety for **EARLY
FALL** Delivery. A preliminary list has been sent
to my customers, and my General Trade Cata-
logue will be ready shortly.

CLEMATIS.

My stock for Fall delivery will be much heavier
than previous seasons. The varieties consist of
all the best kinds and may be relied upon. Also
many other varieties of Hardy and Half Hardy
Climbers.

PYRETHRUMS.

Many thousands of these are grown and form
one of the most important families of my Florist
Fellow Department. Also Carnations, Phloxes,
Delphiniums, Fancies, Pinks, Hollyhocks, etc.

HERBACEOUS PLANTS.

The increasing demand for this group, both at
home and abroad, has necessitated my adding
several acres of fresh stock, in addition to my
usual stock which is immense. Every good hardy
plant is grown in large quantities, and I shall be
pleased to quote prices for anything required.

DAHLIAS.

An extraordinarily complete collection, every
variety of every section worth cultivating will be
found described in my Retail Catalogue, published
in April. Trade list of Pot Roots published in
the Autumn.

HARDY BULBS.

Many acres grown, forming the most important
branch of my Establishment. Anemones, Lilies,
Chionodoxa, Gladioli, Begonias, Montbretias,
and hundreds of other families too numerous to
mention here.

CHRYSANTHEMUMS.

Every variety up to date, including English and
Continental, full descriptions of which will be
found in my numerous Catalogues, which may
be had on application.

THOMAS S. WARE,

HALE FARM NURSERIES,

Tottenham, London, England.

Mention American Florist.



Siebrecht & Wadley,

409 Fifth Avenue, NEW YORK, U. S. A.

SMILAX.

My Smilax are from 2½-inch Rose and 3-inch Standard pots. They are cut back several times to
make strong, bushy plants; and are in every way a first class article that is sure to please. A sample
of the largest and smallest size that will be used to fill your order, mailed on receipt of 10 cts.

PRICE, 2½-inch, \$2.00 per 100; \$18.00 per 1000. 3-inch, \$3.00 per 100; \$25.00 per 1000.

* PANSIES. *

Will have a full supply of fall grown Seedlings, through September, October and November at
\$5.00 per 1000. 75 cents per 100, free by mail.

Quality is the principle feature in Fancies. My strain will meet all demands in this respect.
Some of my customers say they are the best in the country. Give them a trial and judge for yourself.

L. B. 338.

ALBERT M. HERR, LANCASTER, PA.

Choice Stock Cheap.

	Per 100
Primula Obconica, strong 2-in	\$ 3.50
Canas, choice varieties	3.00
Geranium, in 15 choice varieties, 2½-in	3.00
Geranium White Swan, 2½-in	4.00
Geranium Rose Scented, 2½-in	3.50
Fuchsias, choice young stock, 2½-in	3.00
Dusty Miller (Centauria gymnocarpa)	2.00
Achillea, 4 varieties	3.00
Hellebore Garland, 2½-in	3.00
Traditina Vinca Major, 2½-in	2.50
Violets Marie Louise and white, 2½-in	3.00
Rose Bride, 2½-inch	4.00

25 or 50 of any the above at the 100 rate

Address **N. S. GRIFFITH,
JACKSON CO. INDEPENDENCE, MO.**

(Independence is well located for shipping, being
8 miles east of Kansas City.)

NEW SWEET SCENTED CHRYSANTHEMUM

"Nymphaea." A decided novelty. Form and fragrance of the Lily. Fine for florists' use. Also the
cream of the cream of older varieties. Send stamp for
plate of "Nymphaea," and Catalogue.

H. W. HALE, Ridgewood, N. J.

NEW SEEDLING CHRYSANTHEMUM

"ORANGE BEAUTY."

This novelty has been in bloom with us last year
from September until June and is now in full bloom.
We can supply the plants in 2½-inch pots at \$1.00
per 10 plants, or \$10 per 100. Also a large stock of
Grand Duke Jasmin, 2½-inch pots, \$5.00 per 100
pots, \$7.00 per 100. Jasmin multiflorum 2½-in. pots,
\$3.50 per 100. Bouvardia Bockel and Cleveland,
2½-inch pots, \$3.00, and 3-inch pots \$4.50 per 100
Albion Henderson, from 2½-in. pots, at \$7.00
per 100; from 3-inch pots, strong plants, \$1.00 per
dozen, or \$20.00 per 100.

Terms, cash with order or satisfactory reference.

FRANCIS MORAT'S SONS & CO.,

LOUISVILLE, KY.

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SIEBRECHT & WADLEY'S

NEW CATALOGUE OF

* NEW, RARE *

—AND—

BEAUTIFUL PLANTS.

Fully Illustrated and Descriptive

208 PAGES.

Per Copy, 25 Cents, Postpaid.

THE ROSE HILL NURSERIES,

NEW ROCHELLE, N. Y.

All Wholesale and Trade Cata-
logues Free on application.

Mention American Florist

ORCHIDS! ORCHIDS!

Many additions of Choice New
varieties this season.

Send for New Catalogue.

WM. MATHEWS,

UTICA, N. Y.

CUT BLOOMS AT ALL SEASONS.

ORCHIDS

Cheap as Good Roses.

Send 2 two cent stamps for Catalogue and Plate.

BRACKENRIDGE & CO., GOWANSTOWN, Md.



FRESH SEED.

We have made special arrangements with a
large grower of this charming plant, and offer fresh,
new seed at a price never before heard of. As long as
stock lasts, we will fill orders from this advertisement
at \$1.00 per thousand seeds.

John Gardiner & Co., 21 N. 13th Street,
Philadelphia, Pa.

MAMMOTH SUNBEAM PANSY.

The finest strain of Mammoth Pansies grown; very
large, of perfect form, and brilliant colors. A grand
collection of the very choicest. New Crop.
Extra, mixed, per liberal trade packet, 25 cents.
3 packets, 60 cents; 6 packets, \$1.00.

JOHN F. RUPP, Shiremansdown, Pa.

PANSY*SEED.

NEW CROP.

ORDERS BOOKED NOW, for delivery in rotation, on arrival of the new seed expected July 15th, at the following low rates:

TRIMARDEAU, choicest French mixed, unsurpassed in brilliancy of color and size of flowers, some measuring from 2 to 4 inches across. Price, per lb. \$25; oz. \$2.50; ½ oz. \$1.50; ¼ oz. \$1; ⅛ oz. 50c; pkt. 25c. **Trimardeau, Golden Yellow**, ½ oz. \$1.50; 1-15 oz. \$1; pkt. 25c. **Trimardeau, Deep Purple**, ½ oz. \$1.50; 1-15 oz. \$1; pkt. 25c.

BUGNOT'S (NEW), spotted, large flowering show Pansies, somewhat smaller than Trimardeau, but of even more exquisite markings and richer colors, pronounced by many the finest strain produced yet. This variety produces few seeds and is of very scarce. Per lb. \$40.00; oz. \$4.00; ½ oz. \$1.50; ¼ oz. \$1.00; ⅛ oz. 50c; pkt. 25c.

CASSIER'S 3 and 5 blotched tinted, extra line. Per lb. \$20.00; oz. \$2.00; ½ oz. \$1.50; pkt. 25c. **ODIER, or IMPERIALIS**, Prize Pansies, 3 and 5 blotched, extra. Per oz. \$1.00; ½ oz. \$2.50; ¼ oz. \$1.00; ⅛ oz. \$1.00; pkt. 25c.

FAUST (King of the Blacks) fine for bedding. Per oz. \$1.00; ½ oz. 75c; pkt. 25c. **EMPEROR WILLIAM**, dark blue. Per oz. \$1.00; ½ oz. 75c; pkt. 25c.

LORD BEACONSFIELD, purple. Per oz. \$1.00; ½ oz. 75c; pkt. 25c.

Bronze, fine mixed, per oz. \$1; ½ oz. 75c; pkt. 25c.

White, fine mixed, per oz. 75c; ½ oz. 50c; pkt. 25c.

Yellow, fine mixed, per oz. 75c; ½ oz. 50c; pkt. 25c.

All colors, fine German mixed, per lb. \$5.00; oz. 50c; ½ oz. 25c; pkt. 10c.

All colors, improved large-flowering, mixed, per lb. \$10.00; oz. \$1.00; ½ oz. 75c; pkt. 25c.

Terms Cash.

Address **J. A. DE VEER,**
18 Burling Slip, NEW YORK.

ZIRNGIEBEL'S

NEW GIANT MARKET AND FANCY PANSIES

Have been exhibited everywhere and admitted to be the finest strains at the present time.

"Huge jewels of velvet and gold."—Boston Transcript, May 10th, 1890.

Trade packages of 1,500 and 500 seeds respectively, at \$1.00 each. Full printed directions for the proper cultivation of these pansies with each package of seeds.

DENYS ZIRNGIEBEL,
NEEDHAM, MASS.

ROEMER'S SUPERB PRIZE PANSIES.
"The Finest Strain of Pansies in the World."
Introducer and Grower of all the leading Novelties.

Catalogue free on application.
FRED. ROEMER, SEED GROWER,
QUEDLINBURG, GERMANY.

Pansy Seed
of the best quality, in the 24 best exhibition varieties, offered at very moderate prices.

Henry Mette,
Seed Grower and Merchant,
QUEDLINBURG, GERMANY

JOHN A. BLAKE,
30 Vine St., NEW BRITAIN, CONN.,
—IMPORTER OF—

EXTRA CHOICE PANSY SEED
Per 1000
Solid White, Yellow, and a fine mixture..... \$.25
Extra choice mixture..... .75
Extra strains to grow in Europe..... 1.50
Also strong, wintered plants *Primula Obconica*, coming into bloom, \$5.00 per 1000.

PANSIES EXTRA
THE JENNINGS STRAIN.

This seed is saved only from the finest selected plants, and I warrant it in every respect as being very fine, sure to come up. I make a specialty of Pansies, and will have none but the best. I want every florist who grows pansies to try a package of this seed. One old florist says "they are the best I have grown in 21 years." They are all of the largest size and fine color; extra fine for winter flowering. Large trade packet, 25c., 50c., and \$1 each; or by

E. B. JENNINGS, Southport, Conn.,
CARNATION, PANSY AND VIOLET GROWER.

F. R. PIERSON & CO.,

Tarrytown, New York, U. S. A.,

ORIGINAL AND LARGEST GROWERS OF



Lilium Harrisii Better known as **The Bermuda Easter Lily**
The Best in the World for Forcing for Winter Flowers.

WE OFFER ONLY STRONG FIELD-GROWN BULBS FROM OUR OWN GROUNDS IN BERMUDA.

THIS VALUABLE LILY IS OUR SPECIALTY.

We grow the bulbs by the acre on our own grounds in Bermuda. We were the first to grow it in large quantities and to offer it at reasonable prices, and we have always been recognized by the trade as

HEADQUARTERS FOR THE BERMUDA EASTER LILY.

Supplying the trade as we do both in this country and in Europe, and its highest by far the largest and the controlling stock of the genuine variety in the market.

The extent of our operations in this bulb alone will be best understood when we state that we expect to sell from OUR CROP of 1890, over a

HALF A MILLION BULBS.

Be sure you get the genuine *Lilium Harrisii*. In order to secure "the true variety," purchase your Bulbs from original stock, which is known to be pure. The value of this Lily has led unscrupulous or ignorant parties to plant *L. Longiternum* in Bermuda, or grow it there one season and send it out as *Harrisii*, and dealers should look with suspicion on bulbs offered at prices less than market rates, as the supply has never yet met the demand; "Mixed Bulbs" only being offered at reduced rates.

This is not only the best by far of all lilies for winter blooming, but it is one of the most profitable flowers that can be grown by florists. It is very easily handled, and the flowers being especially effective for decorative purposes, always command large prices. From its name some have thought it was a bulb for florists' use for forcing for the Easter market only. This is not exclusively so; it derives its name from the "Easter Lily"—but by growing it in this country in the greenhouse, with successive lots, it can be had in bloom all the winter from early in December until after Easter; in fact, by special culture, all the year round, or as long as cut flowers are in demand. The fact that it can be forced into bloom by the Christmas holidays adds particularly to its value, as it bills in at a time when flowers are usually scarce and in great demand at high prices, but to accomplish this the bulb must be potted early in August, something depending upon after treatment and temperature the bulbs are grown in.

For this purpose our Bermuda-grown bulbs are indispensable, as in Bermuda the bulb reaches its highest development, and ripens off perfectly, and is ready for shipment usually by the middle of July—before bulbs in our own country have hardly begun to make their growth. Our bulbs being grown in the open ground, in a climate naturally adapted for their perfect growth, are particularly strong and healthy at any time.

New Crop will be ready for delivery early in August. Orders booked for delivery at that date.

Large growers or dealers in this bulb should write us for special prices, stating quantity of bulbs desired, and we will give lowest estimate on the same by return mail.

F. R. PIERSON & CO.,
TARRYTOWN, NEW YORK, U. S. A.

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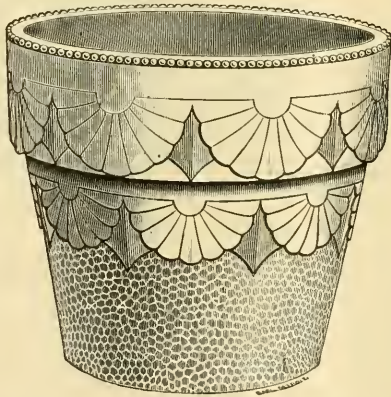
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Their second annual spring exhibition was held in Union Armory on June 17 and 18, and was largely attended. There were about 200 exhibitors and there were flowers in abundance. A noticeable feature was the large amount of native flowers shown.

The following were the professionals exhibiting: V. H. Hallock & Son, Queens, N. Y., double and single begonias, gloxinias, double pyracanthus, ten varieties of lilies and peonias; Wm. H. Spooner, Jamaica Plains, Mass., large collection of hybrid perpetual roses; Gillett & Horsford, Southwick, Mass., large collection of North American plants, among which were fine specimens of *Cypripedium spectabile*, *Kalmia latifolia* and *Adiantum pedatum*. This exhibit was especially interesting for the number of varieties which could be made of value to the trade if properly treated; J. W. Adams & Co., Springfield, Mass., fourteen varieties of strawberries, of which four are new and presented a fine appearance, being staged in the English style; Gale Floral Co., Springfield, Mass., a large basket of carnations; Charles L. Burr, Springfield, Mass., extensive collection of hardy roses, shrubs and herbaceous plants.

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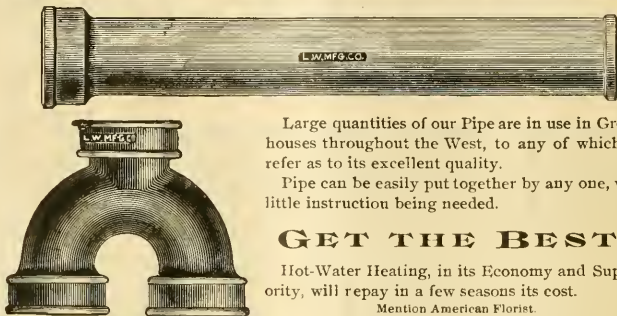
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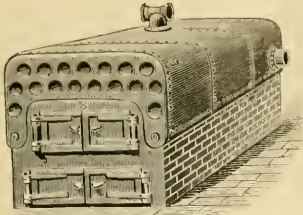
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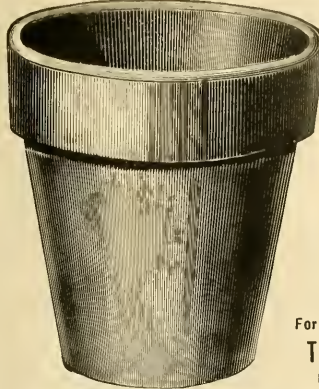
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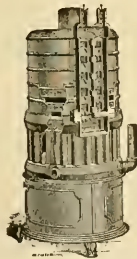
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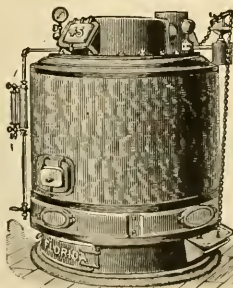
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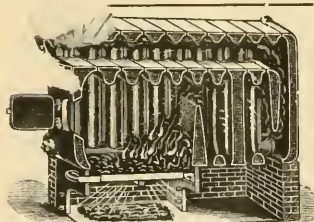
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AMERICAN FLORIST CO., 54 La Salle St., CHICAGO

Index to Advertisers.

Advertising Rates, etc.	572
Aldine Printing Wks.	574
Allen, W. S.	573
Baller F. A.	576
Bayerdorfer H. & Co.	582
Benard G.	574
Blake John A.	573
Blanc A.	580
Boek Theo.	576
Bonner Springs Nur.	582
Brackenridge & Co.	575
Brance I. B.	580
Brauer & Richter	576
Butler Walter	570
Carmody J. D.	584
Carsse Andre L.	577
Critchell B. P. & Co.	575
DeVeer J. A.	577
D'Huene Adolph	583
Devine's Boiler Wks.	583
Detroit Flower Pot Mfg.	583
Diet, John L. & Co.	583
Dillon, J. L.	571
Dreer, H. A.	575
Elliott B. A.	570
Ellwanger & Barry	571
Fant & Bro.	571
Fisher Bros. & Co.	575
Fisk Chas. H.	573
Floral Exchange	573
Forest Glen Floral Co.	571
Frese & Gressen	573
Gardner & Co.	578
Germond & Cosgrove	571
Giddings A.	571
Greene W. W.	575
Hayles	575
Grimb, N. B.	578
Hail Association	578
Hales, H. W.	578
Hallcock, V. H. & Son	578
Hammond, Benj.	580
Hammond & Hunter	575
Harland W. H.	575
Henderson John Co.	571
Hendrix W. W.	574
Herendeen Mfg. Co.	584
Herr, Albert M.	575
Hildner Bros.	583
Hippard E.	583
Hitchings & Co.	584
Hooker, H. M.	582
Horan, Edw. Geo.	575
Hoyt R. D.	575
Hudson John M.	573
Hulsebosch A. J.	571
Hunt E. H.	575
Hunt M. A.	570
Hutches F. L.	585
Ives, J. H.	582
Jennings E. B.	579
Johnson & Stokes	580
Joosten C. H.	577
Jurgens W. A.	575

THE FLORISTS' COMMITTEE who visited Washington on the tariff question recommended the following, which they believe will be adopted in the amended McKinley bill: "All trees, vines, shrubs, etc., commonly known as nursery stock, unless otherwise provided in this act, twenty per centum, ad valorem." For the free list: "Orchids, azaleas, lily of the valley, roses, and other plants used for the garden for cut flowers or for other purposes."

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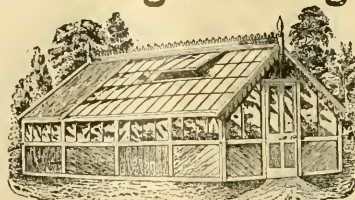
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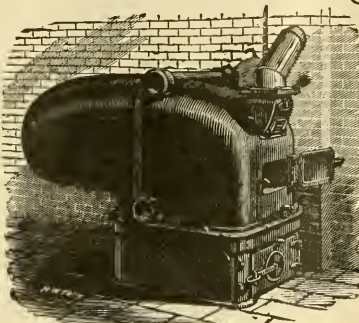


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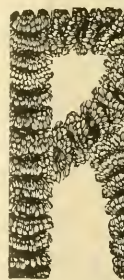
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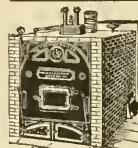
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Vol. V. CHICAGO AND NEW YORK, JULY 15, 1890. No. 119.

THE AMERICAN FLORIST

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SIXTH ANNUAL MEETING,
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CONTENTS.

Mass. Hort. Society rose and strawberry show.	585
Specimen Chinese Wistaria (with illus.)	586
The spring plant trade.	586
Programme for the Boston convention.	589
Nomenclature—a last call.	590
Cactus dahlias (with illustration).	590
Arboretum notes, x.	592
Trees and shrubs in bloom July 4.	592
Boston notes.	593
Chicago.	593
Obituary—Patrick Barry.	594
—B. S. Williams.	594
To Boston next month.	594
The spring plant trade.	596
American vs. foreign seed.	598
The great debate on garden seeds.	598
News notes.	598
Mammoth verbenas.	598
Small heating apparatus (with figures).	599
The problem of plant registration.	600
Rose plants for forcing.	602
Sports—Philadelphia.	604
—Attention bowlers.	604
A step in the right direction.	604
Boston hotels.	604
The reporter and the simberbi.	604
Bonnets of natural flowers.	606

A GREAT DEAL has been said about no amount of technical or theoretical education being able to take the place of the practical experience in the greenhouse or nursery, and it is true in so far as it means that successful florists and nurserymen can not be turned out like book-keepers. But we should not therefore go to the other extreme and recommend instruction in "rule of thumb" only. What the young men need is a *symmetrical* education. The broadening and valuable elements of knowledge should supplement the daily routine of greenhouse work. The wise grower will not develop one part of the plant at the expense of another if he desires a perfect specimen, neither should he give his boys a lop-sided education, such as results from teaching all practice and no theory or all theory and no practice. A *symmetrical* education is a judicious combination of both.

Mass. Horticultural Society.

ANNUAL ROSE AND STRAWBERRY SHOW.

The rose and strawberry show which was held at Horticultural Hall, Boston, on June 24 and 25, was an unqualified success. The number and variety of roses exhibited was unusually large and the quality of the blooms averaged high.

The roses and other cut flowers and plants filled the entire upper hall all available space being occupied, and several large exhibits which could not be accommodated here had to be transferred to the lower hall, which had been reserved for the strawberry department. The arrangement of the rose displays was novel and was generally commended as a decided improvement over any former plan.

The premiums for the various classes of hybrid perpetuals as provided for in the schedule were all sharply competed for. There were six entries for the premiums for general display filling a stand of 100 bottles each, and several similar collections which were not entered for a prize, so these exhibits alone made quite a fair rose show by themselves.

The largest exhibitors were J. B. Moore & Son, Wm. H. Spooner, Warren Henstis, E. Sheppard & Son, Mrs. F. B. Hayes, J. S. Fay, J. L. Gardner, J. H. White, W. C. Strong, Mrs. E. M. Gill and C. G. Weld.

J. B. Moore & Son took the first special Theodore Lyman Prize for 24 distinct named varieties of H. P. roses 3 of each variety. Also first for 16 ditto, second for 12 ditto, and second on 6 ditto. Also third on 24 named varieties, one bloom of each, third on 6 ditto, first on moss roses, and first for general display.

Among the varieties shown by Mr. Moore were superb specimens of Earl Dufferin, Perfection de Lyon, John Bright, Heinrich Schultheis, Thos. Mills, Mme. Gabriel Luizet and Marguerite de St. Armand.

Mrs. F. B. Hayes took the special Spooner Prize for the best 12 blooms of Ulrich Brunner. Also first on 12 named varieties, one of each, and second on 18 ditto. A more perfect lot of roses than Mrs. Hayes' exhibit of 12 named varieties has seldom, if ever, been seen on these tables.

John L. Gardner took first premium for 12 varieties, three of each, first on 24 varieties, one of each, second on 12 ditto, second on 3 ditto, second on moss roses, and third on general display. Particularly well grown were Abel Carrier, Chas. Lefebvre, Duke of Edinburgh and Merveille de Lyon. The exhibit of 24 varieties in this collection was superb. The specimens of Emily Laxton and Baroness Rothschild were about as near perfect as possible.

Wm. H. Spooner received first for 18 named varieties, one of each, second on 24 ditto, third on 12 ditto, and third

special Lyman Prize for 24 varieties, three of each. Among Mr. Spooner's blooms were specially fine specimens of Earl Dufferin, Lady Helen Stewart, Gloire de Margottin, Caroline d'Ardon, Mrs. Harry Turner, Mme. Clemence Joigneaux and Baron de Bonstetten.

Mr. Spooner also showed a splendid lot of outdoor grown American Beauties and some good blooms of Mme. Montet, a clear pink rose which forces well and has been placed on the cut flower market by certain growers here under the misleading name of Charles X.

Warren Henstis took first prize for 3 named varieties, one of each, viz., Glory of Waltham, Jean Soupet and Ulrich Brunner, second on 16 varieties, three of each, and second special Lyman Prize.

J. H. White captured first for 6 varieties, three of each, second on 3 ditto, and second on 6 varieties, one of each.

C. E. Weld was first on 3 varieties, three of each, the set comprising Paul Neyron, Mme. Gabriel Luizet and Merveille de Lyon. He also took first for 6 varieties, one of each.

E. Sheppard & Sons were awarded second prize for general display.

Mr. J. S. Fay exhibited a very fine table of roses in competition for the special Lyman Prize for hybrid perpetuals which was well entitled to second place were it not for the fact that among the varieties staged was Capt. Christy, a rose which is classed by Ellwanger as a hybrid tea, and Ellwanger having been designated by the society as the authority, this display was necessarily ruled out by the committee.

Both first and second prizes for stove and greenhouse flowering plants were taken by N. T. Kidder, who staged fine plants of Anthuriums Andreanum and Ferriense and well trained specimens of Clerodendron Thompsonae and Rhynchospermum jasminoides. The prize for single specimen plant in bloom was awarded to John L. Gardner for a magnificent rhynchospermum about 9 feet high and 5 feet in diameter.

Three first premiums were awarded to John L. Gardner for orchids, viz., best 6 plants, best 3, and best single specimen. The latter was an unusually well bloomed Dendrobium Dearii, and in the former collections were neat plants of Odontoglossums crispum, cordatum and hystrix, Cattleyas Mendellii, Gaskelliana and Mossiae, and Cyrtopidiums barbatum and Lawrenceanum.

Second premium for 6 orchids was awarded to E. W. Gilmore, second for 3 and second for single specimen to N. T. Kidder, the variety staged as specimen being *Ardis nobile*.

The display of Sweet Williams was remarkably fine, E. Sheppard & Son taking first prize for an incomparable exhibit. L. W. Goodell came in second and C. E. Weld third.

In the miscellaneous department a collection of some fifty varieties of hardy flowering shrubs shown by Jackson Dawson attracted much attention. A picturesque grouping of foxgloves and peonies from J. H. Woodford filled the whole stage and formed a very effective decoration for that end of the hall. Interesting displays of wild flowers were made by Mrs. P. D. Richards and E. H. Hitchings, also ornamental foliaged trees and shrubs by W. C. Strong and J. W. Manning, the latter collection comprising upwards of 100 varieties. Mr. Manning also showed 100 varieties of flowering border plants. His method of labeling these, giving plainly the botanical name, common name and native locality is instructive and interesting and well worthy of general adoption.

R. & J. Farquhar & Co. exhibited a plant in bloom of the new annual carnation "Marguerite," a novelty of this year. The seed was sown February 15, hence only about four months have elapsed between sowing and blooming. The flower was of good form and substance, somewhat resembling carnation E. G. Hill but a trifle less brilliant.

Newton Cemetery showed a pretty collection of irises, E. Sheppard & Son a large number of named geraniums, Neal Boyle very fine double white stocks, and Mrs. F. B. Hayes a large table of late blooming rhododendrons.

Mrs. Hayes also showed a plant labeled *Bignonia precox superba*, about two feet high, bearing a profuse crop of very large and showy orange brown flowers.

T. C. Thurlow exhibited a large vase of *Kalmia latifolia* of an unusual bright rosy red, a most striking variety.

The strawberry department of the exhibition, while a little outside of the AMERICAN FLORIST's legitimate sphere, deserves a passing notice here. There were many new varieties and seedling strawberries shown; Mr. A. B. Howard leading the list with a collection of fifty-five seedlings. A silver medal was awarded to B. M. Smith's "Beverly." This variety resembles its parent "Miner's Prolific," but is a larger berry. Among the new berries receiving special prizes and favorable notice may be mentioned Louise, Crawford, Henderson, Bay State, Burgess' Seedling and several unnamed seedlings.

The whole exhibition was a pronounced success, a fact due in no small degree to the able efforts and popularity of Mr. P. Norton, chairman of the committee of arrangements. An invitation was extended to the members of the National Editorial Association which was holding its annual convention at Boston, to visit the show. The invitation was very generally accepted, and many of the delegates from the far west and south will no doubt carry home with them decided convictions respecting Boston's pre-eminence in the rose and strawberry line.

WM. J. STEWART.

Specimen Chinese Wistaria.

The engraving is from a photograph of a Chinese wistaria trained upon the north-east side of the residence of Col. Henry W. Wilson, 190 Dorchester street, Boston, Mass. It was planted in 1863, and now covers a space of 20x25 feet. The main stem is sixteen inches in circumference at one foot above the ground.

The engraving can give only a faint idea of the beauty of the plant when covered with drooping racemes of purple bloom.

The Spring Plant Trade.

ELGIN, ILL.—About same as previous years and no change in prices, 4-inch geraniums retailed at 15 cents each.

UTICA, N. Y.—Sales and prices about as usual, 4-inch geraniums retailing at \$12 to \$15 a hundred. Collections and quality of plants about as usual.

NORWICH, CONN.—Sales and prices same as last year; 4-inch geraniums retailed at \$1.50 a dozen. Quality was below the standard owing to cold nights and rain.

OMAHA, NEB.—Somewhat larger, but prices cheaper this year, 4-inch geraniums retailed at \$2 a dozen. Quality better than last year. Collections are rather slow.

SYRACUSE, N. Y.—Total sales larger than last year. Prices about as usual, 4-inch geraniums retailing at \$1.50 a dozen. Quality of plants fully up to the average.

DENVER, COL.—About 15 per cent larger. No change in prices, 4-inch geraniums retailing at \$2 to \$2.50 a dozen. Quality above the average. Collections about as usual.

LA CROSSE, WIS.—A decided increase, and prices fully as high as usual; 4-inch geraniums retailed at \$1.20 a dozen. Quality equal to last year and collections about as usual.

SALT LAKE CITY, UTAH.—About 20 per cent increase. No change in prices, 4-inch geraniums retailing at \$2 a dozen. Quality of plants was above the average. No difference in collections.

FOND DU LAC, WIS.—Larger with increase for roses, pansies and colons. No change in prices, 4-inch geraniums retailing for \$1.50 a dozen. Collections better and more cash customers.

MUSCATINE, IOWA.—A slight increase over last year, mainly in call for roses. Prices same as usual, 4-inch geraniums retailing at \$1 a dozen, quality about as usual. Collections are good.

KANSAS CITY, MO.—About 20 per cent increase with prices and quality of plants about as usual. There was a larger call for hardy plants than ever before. Collections are a little slower than usual.

WILMINGTON, DEL.—Somewhat smaller than usual, more call for alternantheras. Prices about as usual, 4-inch geraniums retailing at \$1 a dozen. Quality up to standard. Collections good as usual.

LAWRENCE, KAN.—About 10 per cent smaller than last year. Prices about as usual, 4-inch geraniums retailing at \$2 a dozen, quality of plants good as any previous year. Collections about as usual.

SCRANTON, PA.—About 10 per cent larger. Increased call for sub-tropical plants. No change in prices, 4-inch geraniums retailed at \$1 a dozen, quality of plants better. Collections slower than last year.

DANVILLE, ILL.—About same as last year, no increase. Prices slightly lower, 4-inch geraniums retailed for 15 cents each and \$1.50 a dozen. Quality of stock better than usual. Collections are slower than last year.

SEATTLE, WASH.—Being first spring can't make comparisons. Trade was good and prices fair. Roses sold well. Good 4-inch geraniums retailed at \$4 a dozen. Collections slow. All good stock sells at fair prices here.

MALDEN, MASS.—Volume of trade, prices, and quality of plants about as usual. Collections are satisfactory. Retail trade is injured here by peddlers who buy plants at auction and sell to our customers at low prices.

TORONTO, ONT.—About as usual, possibly a trifling increase. No change in prices from former years, 4-inch geraniums retailed at from 75 cents to \$1.25 a dozen, \$1 being about the average. Collections average as good as usual.

SAGINAW, MICH.—About 20 per cent larger than last year. Prices about as usual, 4-inch geraniums selling at \$1.25 a dozen, quality of plants was above the average. Collections are satisfactory. Increased call for hardy stuff.

READING, PA.—About same as usual. Noted a better demand for palms. Prices about as usual, 4-inch geraniums retailing at \$1 to \$1.50 a dozen. Quality of plants was 25 per cent better than usual. Collections are about as usual.

WASHINGTON, D. C.—About as large as usual, supply of two-year old roses not equal to demand. Prices up to standard; 4-inch geraniums retailed at \$1 a dozen. Quality rather below the average. No complaint regarding collections.

DALLAS, TEXAS.—Much larger than last year; prices about as usual, 4-inch geraniums retailing at \$1.50 to \$2 a dozen, quality about as usual. Collections are very good. Increased demand for good plants in bloom at holiday times.

NASHVILLE, TENN.—Sales somewhat larger and prices about as usual, common 4-inch bedding geraniums retailing at \$1.50, good ones at \$2 a dozen. Owing to mild winter quality below the standard. Collections about as usual.

EVERETT, MASS.—No change from last year in amount of sales or prices, 4-inch geraniums wholesaled at \$8 a hundred, 3½-inch at \$7. Quality of plants was good but season was late. Collections are very satisfactory—better than ever.

DAVENPORT, IOWA.—About 10 per cent increase over last year, the increase being mainly for hardy plants. Prices about as usual, 4-inch geraniums retailing at 25 cents each, quality of plants better than usual. Collections are very prompt.

LANCASTER, PA.—About 25 per cent increase with better demand for colons and geraniums. Prices same as previous years, 4-inch geraniums retailing at \$1.50 a dozen. Quality of plants was better than the average. Collections are prompt.

PORTLAND, ME.—About 15 per cent increase. Prices same as last year, 4-inch geraniums retailing at \$1.25 to \$1.50 a dozen. Pansies and verbenas were extra in quality, other plants about as usual. Collections show no change from last year.

NEWPORT, R. I.—A small increase. Prices about as usual, 4-inch geraniums retailing at \$1 a dozen. Quality of plants above the average. Collections about as usual. It don't pay to raise geraniums in 4-inch pots to sell at 75 cents to \$1 a dozen.

BIRMINGHAM, ALA.—About 10 per cent increase with better demand for palms and Rex begonias. Prices were about as usual, 4-inch geraniums retailing at 15 cents each. Quality of plants was quite as good as usual. Collections are satisfactory.

INDIANAPOLIS, IND.—Average a slight increase. Prices averaged somewhat



SPECIMEN CHINESE WISTARIA

lower than last year, 4-inch geraniums retailed at \$1 to \$1.50 a dozen, \$1.25 being about the average. Quality not quite up to former years. Collections rather slow.

SALEM, MASS.—Spring trade showed the usual increase the extra call being mainly for bedding plants. Prices ruled same as usual, 4-inch geraniums retailing at \$1 to \$1.50 a dozen, quality of plants above the average. Collections much better than last year.

NEW BEDFORD, MASS.—Somewhat larger than last year with increased call for geraniums and hardy stuff. Prices about as usual, 4-inch geraniums retailing at \$1 to \$1.50 a dozen, a few bringing as high as \$2. Quality was a good average. Collections are satisfactory.

ST. JOSEPH, MO.—About 20 per cent larger with increase for pansies and decrease for carpet bedding plants. Prices same as usual, 4-inch geraniums retailing at \$1.50 a dozen. Collections good as usual. A marked increase in call for geraniums and large roses.

GRAND RAPIDS, MICH.—Larger, the main increase being in geraniums. Prices about as usual, 4-inch geraniums retailing at \$1 a dozen. Quality a little better. Collections about as usual. People are inclined to buy hardy stuff such as roses, clematis and hardy shrubs.

OSWEGO, N. Y.—About 10 per cent larger with increased call for geraniums

and pansies. Prices ruled somewhat lower than previous years, 4-inch geraniums retailed at \$1.50 a dozen, quality of plants rather better than usual. Collections are about as usual.

HOLYOKE, MASS.—Spring trade showed the usual steady growth with more demand for geraniums and hardy plants. Prices rather better on the whole, good 4-inch geraniums retailed at \$1.50 a dozen. Quality of stock was extra good. Collections are about as usual.

RICHMOND, VA.—About one-third larger than last year, the main increase being in call for geraniums, verbenas and roses. Prices somewhat lower than heretofore, 4-inch geraniums retailed at \$1 a dozen. Quality of plants above the average. Collections as prompt as usual.

ST. LOUIS.—Larger than last year with increased call for hydrangeas and alternantheras, less call for coleus. Prices fully equal to previous years and in some cases better, 4-inch geraniums retailed at \$1 to \$1.50 a dozen. Quality was excellent. Collections are better than usual.

POUGHKEEPSIE, N. Y.—Larger than usual by 25 per cent; good pansies sold well. Prices about as usual, 4-inch geraniums retailing at \$1 a dozen, quality of plants was good. Popular prices, at which all can buy, are the coming prices. Collections are prompter than last year.

SPRINGFIELD, ILL.—About 20 per cent increase, hydrangeas selling better than

usual. Prices were about as usual, 4-inch geraniums selling at \$1 to \$1.50 a dozen, quality of plants rather better than usual. The florists here seem to feel well satisfied with the spring trade. Collections are as prompt as usual.

OTTAWA, ONT.—About same as usual, possibly an increase in call for geraniums. No change in prices, 4-inch geraniums sold at \$1 to \$1.50 a dozen, quality under the average owing to cold spring. The increase in the number of small growers who sell for what is offered has spoiled plant business here.

CINCINNATI.—Small increase. Noted a larger call for alternanthera and echeverias. Prices averaged the same as formerly, 4-inch geraniums retailing at \$1.25 to \$1.50 a dozen. Quality below the average. Collections better than usual. The demand for bedding roses and coleus was rather poor.

HARTFORD, CONN.—About same as last year, one florist reporting an increased call for coleus and vase plants. Prices averaged about same as last year, possibly a little higher in some cases, 4-inch geraniums sold at \$1 to \$1.50 a dozen, quality of plants rather better than usual. No trouble in collecting bills.

MT. VERNON, N. V.—About 10 per cent larger with increased call for herbaceous plants. Prices were about as usual, 4-inch geraniums sold for \$1 a dozen. Quality of stock was very good. Collec-

tions are fair—about as usual. An increased demand was noted for cannas and other large, showy plants.

ANNISTON, ALA.—Trade too young here to make comparisons. Foliage plants seem to be liked here. Plants were of good quality, 4-inch geraniums sold for 75 cents to \$1 a dozen. The variable season, late frost in March and suddenly hot weather made people a little shy of buying. Collections are slow.

VONKERS, N. Y.—About the average, possibly a slight increase, better demand for geraniums. No increase in prices, 4-inch geraniums retailed at \$1 to \$1.50 a dozen. Quality of plants equal to previous seasons. Collections slightly better than last year. Sales of trees and shrubbery better than past three years.

HARRISBURG, PA.—About one-fourth larger with more call for alternantheras and coleus and less for fuchsias. Prices rather better than usual, 4-inch geraniums retailed at \$1.25 to \$1.50 a dozen. Quality of plants up to the average. Collections better than usual. All stock was sold out pretty close by all florists here.

ERIE, PA.—About same as last year, possibly a slight increase. Better demand was noted for fuchsias and heliotropes. Prices nearly the same as usual, a trifle higher if anything, 4-inch geraniums retailed at 15 cents each or \$1.50 a dozen. Quality of plants better than usual. Collections about same as last year.

JACKSON, MICH.—Much larger than last year, but prices were low, 4-inch geraniums retailed at \$1 a dozen or \$8 a hundred, other bedding plants in 4-inch pots at same price, quality of plants was excellent. Detroit florists seem to be selling plants as cheap at retail as at wholesale, and we have to meet their prices.

LOUISVILLE, KY.—About 10 per cent larger than last year. One florist noted an increased call for coleus. Prices ruled about the same as previous years, 4-inch geraniums retailed at \$1 a dozen. Quality of plants about as usual, collections same. Roses were scarce, especially 2-year old plants for which there was a brisk demand.

WINCHESTER, MASS.—About one-eighth decrease from last year. Prices about as usual, 4-inch geraniums retailed at from 85 cents to \$1.25 a dozen. Quality of plants was a fair average. Collections satisfactory. The season was the most unfavorable for the last 20 years, being either cold or wet during most of the selling season.

FALL RIVER, MASS.—A trifle larger with an increased call for hardy and half-hardy plants. Prices were lower, first-class 4-inch geraniums retailed at \$1 to \$1.25 a dozen. Quality of plants was good on the average. Collections are better than last year. Vincas were very scarce, there was increased call for filled vases and window boxes.

SPRINGFIELD, MASS.—Somewhat larger with increased call for palms and decrease for coleus and similar foliage plants. Prices were about as usual, 4-inch geraniums retailed at \$1 a dozen. Quality of plants rather above the average and collections about as usual. Competition was sharp, altogether too sharp for the general good.

HELENA, MONT.—Spring plant sales were double those of last year, a notable increase in demand for pansies and ver-

benas. Prices were about the same as last year, 4-inch geraniums retailed at 35 cents each, quality of stock equal to previous years. Owing to cold season outdoor stuff is poor up to date. Collections have been very prompt.

MEMPHIS, TENN.—About 15 per cent larger than last year with prices about as usual, rather better than otherwise, 4-inch geraniums retailed at \$1.50 to \$2 a dozen, some extra good ones bringing as high as \$2.50. Quality of plants was good, possibly a trifle over the average. Collections have been very satisfactory, rather better than usual.

NORTH CAMBRIDGE, MASS.—Total sales about same as usual, prices somewhat lower especially on geraniums and pansies, 4-inch geraniums retailed at 75 cents to \$1 a dozen, quality of plants up to the average. Collections as good as usual. Decline in prices was caused by competition of plants bought at from one to five cents each at the auctions.

NASHUA, N. H.—Somewhat larger than last year with increased call for plants of first quality, less call for coleus, hydrangeas sold well. Prices averaged about equal to last year, quality of plants about as usual, 4-inch geraniums retailed at \$1 to \$1.50 a dozen. One florist reports collections about as usual and another says they are slower.

PITTSBURGH.—At least 10 per cent larger than last year. Prices ruled much the same as last year, 4-inch geraniums retailed at from 75 cents to \$1.25 a dozen, the average being about \$1. Quality of plants was about the average taken generally. Collections are decidedly better. Season was backward, but held up better after Decoration Day than ever before.

TERRE HAUTE, IND.—Much larger than last year with increased call for alternantheras, geraniums and verbenas. Prices about as usual, 4-inch geraniums retailed for \$1.50 a dozen, extra select plants bringing \$2, quality of plants was never better. Collections are prompt as usual with us. Demand for specimen palms and other decorative plants is on the increase.

MONTREAL.—Average about same as previous years. Increased call for carpet bedding plants, decrease for petunias, verbenas and annuals. Prices same as last year, 4-inch geraniums retailed at \$1.50 a dozen. Quality of plants was up to the average except alternantheras. Collections about as usual. Season was about two weeks late owing to wet, cold weather.

EVANSVILLE, IND.—About the same as last year, possibly a trifle less, one florist noting an increased call for roses. Prices a trifle lower than usual, 4-inch geraniums retailed at from \$1 to \$1.50 a dozen, but sold slow. Quality of plants equal to previous years, collections about as usual. A late and wet spring delayed sales fully three weeks making the selling season short.

NEW HAVEN, CONN.—Total volume of trade about as usual, increased call for vase plants. Prices same as usual, 4-inch geraniums retailed at \$1.50 a dozen. Quality equal to previous years and collections about as usual. Several wealthy citizens who keep gardeners have turned their gardens into sales places and the increased competition makes it difficult to keep prices up to a paying basis.

DES MOINES, IOWA.—Fully 25 per cent larger than last year, large call for pansies and plants for foliage beds, and a decidedly

increased demand for scarlet geraniums for beds of one color. Prices averaged about as usual, 4-inch geraniums bringing \$1.50 to \$2 a dozen, quality of plants better than usual. Collections are better than ever before. There was an excellent demand for hardy roses and clematis.

PROVIDENCE, R. I.—One florist reports the spring plant trade as about equal to previous years and another as one-third less than the average. One notes an increased call for roses and hydrangeas. Prices were about as usual, 4-inch geraniums retailed at from 50 cents to \$1.50 a dozen, quality of plants compared favorably with previous years. Collections rather more prompt than usual.

JERSEY CITY, N. J.—About same as previous years, possible a small increase. Prices ruled about as usual, 4-inch geraniums retailed at 15 cents each and \$1.50 a dozen up to Decoration day and 10 cents each or \$1 a dozen after that time. Quality of plants was rather better than usual. One florist who sold out cleaner than usual accounts for it by not having so much stuff in small pots—propagated late.

RACINE, WIS.—A trifle larger than last year with a slightly increased call for foliage plants. Prices about as usual, quality of plants good, 4-inch geraniums retailed at \$1.50 a dozen, collections good. Most all bedding stuff from 4-inch pots sold at \$1.50 a dozen, 3-inch at \$1, except coleus in quantity which sold for somewhat less, pansies were good sale at 50 cents and verbenas at 75 cents a dozen.

HAMILTON, ONT.—Will average a small increase but there is a decided tendency toward lower prices owing to the many new growers who have largely increased production. Choice 4-inch geraniums retailed at \$1 a dozen, but 75 cents was about the standard and great numbers were sold for what the seller could get. The established growers kept up the quality of their stock to the usual average.

DAYTON, O.—At least one third larger than last year with increased call for geraniums and coleus. Prices ruled fully as high as usual; 4-inch geraniums retailed at from \$1 to \$1.50 a dozen. Quality of plants better than previous years. Collections good. A great increase in cut flower trade, got good prices till late in season. One florist who makes a specialty of the clematis reports largely increased sales of that plant.

BUFFALO, N. Y.—About 15 per cent increase with better call for cannas, caladiums and fine foliage plants. Prices were quite as good as usual, 4-inch geraniums retailed at \$1.50 to \$1.75 a dozen. Quality of plants was fully up to the standard, in some cases superior. Collections are very satisfactory. Our prices for bedding plants compare favorably with other cities, but buyers here demand first quality stock at these prices.

ELMHURST, N. Y.—About 25 per cent larger than last year with greatly increased demand for alternantheras. Prices about as usual, 4-inch geraniums retailed at from \$1 to \$1.50 a dozen, quality of stock better than usual. This season was more favorable for sales. At the time of selling last year this section was visited by a disastrous flood, and the lessened trade last year accounts in a measure for the comparative increase this year.

MILWAUKEE, WIS.—From 10 to 25 per cent larger than last year with in-

creased call for carpet beds. Prices were about as usual, good 4-inch geraniums retailed at from \$1 to \$1.50 a dozen—poor ones were given away. Quality of plants averaged better than in previous years, collections about as usual. Bedding looks better than last year at this date. Customers discriminate more intelligently as to quality of plants and will more readily pay a fair price for first class stock.

LOWELL, MASS.—About the average, possibly a slight increase. One florist notes an increased call for fuchsias and double petunias, another for potted hardy roses in pots. Prices generally ruled about same as usual, 4-inch geraniums retailing at \$1 to \$1.50 a dozen, the majority being sold at the lower price. Quality of plants was rather better than usual. Collections are rather slower. Several farmers who have started greenhouses and sell very cheap have lowered prices in this vicinity.

DORCHESTER, MASS.—About 20 per cent larger than last year. Noted an increased call for hydrangeas and quite a marked decrease in that for geraniums and Golden Bicolor coleus. Prices averaged one-third less than in previous years; the average retail price for 4-inch geraniums was \$1 a dozen. Quality of plants was excellent. Collections very satisfactory. On account of two wet summers geraniums and Golden Bicolor coleus showed a falling off in sales, but with a dry summer think sales of both would improve.

PHILADELPHIA.—About 15 per cent decrease, though there was an increased call for palms and large roses. Prices ruled about as usual, slightly lower on palms and similar plants, 4-inch geraniums retailed at \$8 to \$12 a hundred according to quality. Quality of stock was about as usual, except roses which were smaller owing to wet season of 1889. Collections are rather better than usual. One large grower noted an increased demand for hardy, herbaceous plants and less call for coleus, alternantheras, etc.

NEW ORLEANS.—One florist reports an increase of 20 per cent and another a decrease of 50 per cent, both an increased call for palms and similar plants, one much less call for all bedding plants on account of mild winter. One reports prices better and the other as 10 per cent less on bedding plants. One sold 4-inch geraniums at \$1.50 to \$1.75 a dozen and the other at \$1.50 to \$3 a dozen. Quality of greenhouse plants was equal to last year. One says that bills are paid promptly and the other says collections are very slow.

ROCHESTER, N. Y.—Sales were slow at first, but last few weeks brought the total sales up so they will average equal to last year and possibly a slight increase. While many florists report poor sales, still if you go into their houses you find they have nothing left. There was more fancy bedding in alternantheras, echeverias, etc., and an increased call for palms and hydrangeas was noted by some. Prices kept up very well for first class plants, 4-inch geraniums bringing \$1.25 to \$1.50 a dozen. Quality was good in most places, but there was a lot of cheap stuff sold which was very poor. Outdoor roses have been very fine about Rochester this season. Collections are as prompt as usual.

BALTIMORE.—About same as last year, possibly a very slight increase. Two florists noted an increased call for large

roses, and one for hydrangeas. Prices no higher than in previous years and in some cases lower on account of sharp competition here. Principal florists held 4-inch geraniums at \$1 a dozen, and some extra good ones brought 15 cents each, but on the market they were sold for as low as 4 and 5 cents each. Quality of plants compared favorably with that of previous years, but market people complained of slow sales, as owing to dull weather plants were not in as brilliant bloom as is necessary to sell well in the market, and backward season hurt sales. Collections average about as usual. One florist reports an increased demand for herbaceous stuff and says that buyers are discriminating with better judgment between well and poorly grown plants.

PATERSON, N. J.—Spring plant trade probably averaged about the same as last year, though one florist reports a decrease of 50 per cent in his sales. There was some increase in the call for good geraniums, also for coleus and alternantheras. Prices averaged about the same as in previous years, 4-inch geraniums selling at 10 cents each or \$1 a dozen, \$10 a hundred planted out, though some sales were made as low as 5 cents each. Quality about the average. Collections are much more promptly made than last year. The season was at least two weeks behind that of former years which probably had the effect of shortening sales in some cases. One florist says "The plant trade in this section is run down by farmers and others going into it, also by peddlers and hucksters who buy plants at auction and bring them here."

Programme for the Boston Convention.

TUESDAY, AUG. 19, 1890.

FIRST DAY—Opening Session, 10 o'clock A. M.

ADDRESS OF WELCOME, BY THE GOV. OF MASS., AND THE MAYOR OF BOSTON—RESPONSE, ROBT. CRAIG, PHILA.—PRESIDENT JORDAN'S ADDRESS—REPORTS OF SECRETARY AND TREASURER—REPORTS OF STANDING COMMITTEES—MISCELLANEOUS BUSINESS—DISCUSSION OF PRESIDENT'S ADDRESS.

FIRST DAY—Evening Session, 7 o'clock.

ESSAY—The growing importance of Easter trade, and how to prepare for it. JAS. DEAN, Bay Ridge, N. Y.

Discussion.

ESSAY—The Value of System in Business. D. B. LONG, Buffalo, N. Y.

Discussion.

QUESTION BOX.

WEDNESDAY, AUG. 20, 1890.

SECOND DAY—Morning Session, 9:30 o'clock.

Selection of place of meeting for 1891.

Nomination of officers for ensuing year.

ESSAY—Hybridization. E. S. CARMAN, River Edge, N. J.

Discussion.

Election of State Vice-Presidents by State Delegations.

SECOND DAY—Evening Session, 7:30 o'clock.

ESSAY—Best Twenty-five Hardy Herbaceous Plants for Florists Use. J. WOODWARD MANNING, Reading, Mass.

Discussion.

ESSAY—Succulents. E. S. MILLER, Floral Park, N. Y.

Discussion.

Discussion on Landscape Gardening.

This subject proved to be most interesting at the Buffalo meeting, and an opportunity will be given to all who wish to express their opinions on the subject at this time.

QUESTION BOX. (see below.)

The Florists' Hail Association will meet at Horticultural Hall one hour previous to the opening of the Evening Session, Second Day.

THURSDAY, AUG. 21, 1890.

THIRD DAY—Morning Session, 9:30 o'clock.

Election of officers.

ESSAY—The use of Special Fertilizers Under Glass. PROF. S. T. MAYNARD, of Mass. Agri. College, Amherst, Mass.

Discussion.

Review of plants of recent introduction.

THIRD DAY—Evening Session, 7:30 o'clock.

Final committee reports.

Miscellaneous business.

QUESTION BOX. (see below.)

FRIDAY, AUG. 22, 1890.

FOURTH DAY.

The fourth day will be devoted to social enjoyment. The Gardeners' and Florists' Club of Boston will tender to the members of the Society of American Florists a trip in Boston harbor and along the Massachusetts coast, to be followed by a banquet at Nantasket Beach. Other hospitalities which have been prepared for the pleasure of the delegates, including a number of invitations to notable private establishments, will be announced at the proper time.

QUESTION BOX.

The following subjects for the Question Box have been already sent in, and together with those placed in the Question Box during the session, will be assigned to gentlemen competent to reply to them. Five minutes will be allowed for each reply, and they will be replied to at the three evening sessions, and will be grouped as nearly as possible so that subjects of general interest to the trade will be assigned to the first evening; cultural questions to the second evening; and questions relating to mechanical appliances, etc., to the third evening.

SUBJECTS.

1. Berry-bearing Plants for Fall Use?
2. Twenty-five Plants Indispensable to the Extreme South?
3. Acclimation of Southern Plants in the North?
4. Twelve Best House Plants for Window Gardening?
5. How must Liliun Auratum be Handled to make it a Permanent Success in Open-air Culture?
6. Can the Hellebores be Grown to Advantage by the Commercial Florist?
7. Can we Reasonably Expect a Race of Early Chrysanthemums, blooming in September and October, Valuable for America?
8. Best Method of Treating Callas during Summer to have them in bloom for the holidays?
9. Best Method of Forcing Early Hybrids?
10. Twelve Best Hardy Shrubs for Florists' Use?
11. Twenty Best Native Plants suitable for Florists' Use?
12. The Use of Foliage in Connection with Cut Flower Work?
13. How to Increase Public Interest in the Society and its Objects?
14. Is the Selling of Flowers, etc. through Commission Men the best possible Plan of Marketing our Produce? (To be answered by a grower, a commission dealer and a retailer respectively.)
15. What can be used to make a Vapor that will Destroy Red Spiders and not injure Vegetation in Greenhouses?

16. Petroleum: Is it Profitable in Greenhouse Heating?

17. What can be said in favor of Overhead Heating?

18. Is Double thick Glass the best and in the long run the Cheapest?

Nomenclature.

S. A. F. Committee on Nomenclature.

JAMES D. RAYNOLDS, Riverside, Ill., Chairman.

Roses:

ROBERT CRAIG, 49th & Market Sts., Phila., Pa.
EDWIN LONSDALE, Chestnut Hill, Phila., Pa.
ERNEST ASSMUS, West Hoboken, N. J.

Carnations

A. E. WHITTE, Albany, N. Y.
JOHN THORPE, Pearl River, N. Y.
WM. FALCONER, Glen Cove, N. Y.

Palms, Ferns, and like Decorative Plants:

CHAS. D. BALL, Holmesburgh, Phila., Pa.
JOHN BURTON, Chestnut Hill, Phila., Pa.
W. R. SMITH, Botanic Garden, Washington, D. C.

Chrysanthemums:

JOHN THORPE, Pearl River, N. Y.
WM. FALCONER, Glen Cove, N. Y.
J. M. KELLER, Bay Ridge, N. Y.

Bedding Plants:

G. L. GRANT, 54 La Salle St., Chicago, Ill.
ROBERT CRAIG, 49th & Market Sts., Phila., Pa.
J. M. KELLER, Bay Ridge, N. Y.
A. E. WHITTE, Albany, N. Y.

Orchids:

DAVID ALLAN, Mt. Auburn, Mass.
BENJ. GREY, Malden, Mass.
WM. FALCONER, Glen Cove, N. Y.
J. FORSTERMAN, Newtown, N. Y.

A Last Call.

Every one has agreed for a long time that our nomenclature needed revising and every one seemed to think as soon as a committee of able men was appointed for this purpose the work was as good as done. Then after a little while when they found that the work was not done people were much surprised and began to wag their heads and even to take pen in hand and write to the *FLORIST* intimating that the committee was no good.

It does not seem to have occurred to these cavilers that there was any divided responsibility in the matter and that in fact they themselves were as much to blame as any one for this tardiness of action. It is high time the fact was realized that this work is one that no committee can perform without co-operation. No man, nor any fourteen men can draw from their own experience the necessary data. It is needful to utilize the experience of all the members of the society. There can be hardly one reader of the *FLORIST* who has not in his mind one or more (and generally a good many more) cases of misnaming. If every one would write these down and send them in, stating in each case what in their opinion was the true name, it would be of immense assistance. Then the committee would have ample material to work on.

In the considerable number of cases where the identity of a plant is not doubtful, but it is uncertain which of two or more names rightfully belongs to it, the question could be settled off-hand by mere preponderance of opinion. But in the much larger class where there is room for doubt whether plants sent out under different names are or are not identical, it will become necessary to make arrangements for testing, and this fortunately has now become a practicable thing owing to the promise of assistance from the Agricultural Experiment Stations. With this co-operation from the members at large on one hand and the Experiment Stations on the other it is certain that valuable work may be done, but co-operation we must have.

Again and again has the *FLORIST* urged all who know of any case of misnaming to communicate it to the nomenclature

committee, but the appeal has fallen on deaf ears. There has been a stolid apathy and indifference all around that might almost seem to justify the committee in resigning their task on the assumption that people do not really care whether their nomenclature is corrected or not. If you do care are you not willing to show it by helping along a little. Give the committee some assistance and they will show some adequate results, without this assistance you cannot expect results. You have no more right to expect it than had old Pharaoh to ask the Israelites to make brick without straw.

An addressed postal card has been sent to every member of the S. A. F. with the request that known cases of misnaming be set down thereon and mailed to the chairman of the committee. Please set down *every case* you know of, never mind whether the ones you have in mind are so notorious that you are sure every one else will mention them and so think there is no need for your doing it. That sort of argument would prevent our getting any replies at all, and has prevented it so far. It does not matter how many mention the same case, the more the better, only do not pigeon-hole the postal card, fill it out and return by next mail and have it off your mind.

The nomenclature committee meets in Boston August 18, and there is no time to lose.

J. D. R.

Cactus Dahlias.

From *Dahlia Juarezii*, a vivid scarlet flowered kind from Mexico, has sprung the many beautiful varieties now known as cactus dahlias. The name cactus dahlia was given to *D. Juarezii* as soon as its flowers were first exhibited in England because of their broad uneven petals and brilliant cactus-like coloring.

Dahlia Juarezii was first introduced to the old World by Mr. J. T. Van der Berg, of Juxphaar, Utrecht, who in 1872 received a small tuber of it from a friend in Mexico. In 1873 young plants raised from this tuber were planted out in summer, and astonished everyone who saw them by their peculiar flowers so different in shape from those of any other dahlia in cultivation, and of such a glowing scarlet hue. After passing through one or two other hands it was introduced into England from Holland by Mr. W. H. Cullingford, of Phillimore Gardens, London, and who is well known to most of us through his connection with chrysanthemums. From Mr. Cullingford Mr. H. Cannell of Swanley, got it, then of course the world had it.

It was first exhibited in England at the meeting of the Royal Hort. Society, London, September 16, 1879, by Cannell, when it was awarded only a botanical certificate! Since then, however, the tide of public opinion has turned in its favor from probation to adoration, and florists and hybridists have handled it vigorously till now we have dozens of new varieties of this type, with white, yellow, purple, crimson and scarlet flowers, but none surpassing in brilliance the original *Juarezii*. And the fathers of the great R. H. S. have turned into the stream of love and now every year shower their choicest blessing—a first-class certificate—upon the children of President *Juarezii* dahlia.

As a selection of varieties of cactus dahlias I don't think I can do better than name those in the collection of 12 varieties of decorative and cactus dahlias that won the first prize at the exhibition of the National Dahlia Society, held in the Crystal Palace, London, September 6 and 7, last year. They were: Asia,

Amphion, Empress of India, Henry Patrick, Honoria, Juarezii, Lady Marsham, Mrs. Hawkins, Panathea, Professor Baldwin, Prince of Wales and William Darville. The first prize collection of six varieties contained Amphion, Beauty of Brentwood, Centenary Year, Empress of India, Marchioness of Bute and Panathea.

A nice selection of cactus dahlias would be Amphion, chrome yellow, flushed; Beauty of Brentwood, purple; Charming Bride, white tipped with pink; Empress of India, deep crimson; Henry Patrick, white; Panathea, rich reddish salmon; Prof. Baldwin, bright orange; Sydney Hollings, dark maroon; William Pearce, yellow; Zulu, blackish crimson, and the indispensable Juarezii.

But the cactus dahlias are not all retained in their purity; into them is being infused the blood of show and fancy varieties, and these have given rise to the "decorative" dahlias or intermediate forms, several of which also are strikingly beautiful. Cactus dahlias are of vigorous habit and copious nature, and as good for outdoor decoration as are the formal show and fancy sorts, and far more desirable for cut flowers, that is, being more elegant and less formal they are more pleasing to the eye.

W. F.

Arboretum Notes.

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There are now about 2,300 species and varieties in the trial grounds of the Arnold Arboretum. Seeds and plants are being constantly received from all parts of the world, and under Mr. Dawson's skillful manipulation their good points, if they have any, are speedily brought out.

The first and most important requisite is hardiness. Nothing is wanted here unless it will withstand an average New England winter, and any candidate be it ever so beautiful, which fails in this respect is soon discarded.

No new shrub has been introduced here for many years that is such an acquisition as *Rhododendron Vaseyi*. A plant of this in bloom in early spring is a most charming sight. The pure pink blossoms appear before the leaves and are so abundant as to literally cover the plant. It is perfectly hardy. In its original form it is destined to stand in the first rank as a garden shrub, and the possibilities in the way of cross breeding with other valuable species can not be overestimated.

The earliest rose to bloom this year was *Rosa acicularis cinamomum* var. *Siberica*. This was in flower May 22.

A very shapely little shrub is the *Prunus padus* fl. pl., a semi-double form of the common European Bird Cherry. The flower spikes are six inches long, pure white and very fragrant. Small sized plants flower profusely.

Viburnum opulus nanus has quite an unusual appearance. It grows low and close, perfectly flat across the top as if clipped, and makes a valuable dwarf hedge plant. It seldom blooms.

Among andromedas one of the earliest and prettiest is *A. polifolia*. It is evergreen and the delicate little pink flowers are borne in clusters at the tips of the shoots.

Among the very best hardy shrubs for early cut flowers are the perennial candy-tuffs *Iberis tenoreana* and *corredoia*. The latter blooms about ten days later than *tenoreana*. For Decoration Day work in this latitude nothing better for a serviceable pure white flower can be suggested. It blooms very profusely and the flowers will keep a long time aftercutting.

The cytissuses in many species afford an abundance of brilliant yellow bloom



CACTUS DAHLIAS.

at this season. *Cytisus biflorus* flowers profusely on the axils of the leaves of the old growth. The well known Scotch Broom (*Cytisus scoparius*) is now at the height of its glory. *Genista Germanica*,

the German Broom, is low growing and spreading, not over 15 inches in height and is very pretty.

A most useful spirea for florists' work is *Spiraea Cantoniensis*, fl. pl. The flowers

are in umbels, very double and of purest white. In bloom here first week in June.

The earliest *Philadelphus* to bloom is *P. speciosus*, and it is one of the best in form and size of flower and color. It

forces very readily and the flowers keep well after being cut. A few have been forced for the Boston market the past season.

Magnolia parviflora var. *major* is a new variety recently received from Parsons. The petals are pure white and stamens dark crimson, making a striking and beautiful flower.

In climbing plants *Wistaria brachybotris albus* is one of the hardiest and best. Its flowers are white, borne in racemes measuring from 2 to 2½ feet in length. W. J. S.

Boston, Mass., June 23.

Trees and Shrubs in Bloom July 4th.

BY WM. FALCONER, LONG ISLAND.

I am not sure that we can use the blossoms of many of the trees and shrubs now in bloom out of doors, as cut flowers with profit, but we certainly can make good use of some of them, for instance, *Spiraea discolor arifolia*. Cut flowers alone, however, are not the limits of a florist's use for plants, hardy or tender; if he has got a general plant trade he should be prepared to furnish the best and choicest shrubs, both deciduous and evergreen. In spring and early summer we have a vast variety to choose from, but as the summer advances the list of good flowering shrubs greatly lessens.

SPIRÆAS.—We have several handsome kinds now in good bloom. While it is easy enough to determine the species, among the names of the varieties there is considerable confusion, especially among those belonging to *S. Japonica*, *S. Douglasi* and *S. salicifolia*.

THE MAIN SHOOTS of *S. corymbosa*, a pretty white flowering species from the Allegheny Mountains, have done blooming, but several of the outer and shorter stems are yet terminated by dense white corymbs.

S. discolor arifolia is in beautiful condition, its small, dull white, fragrant fleecy flowers are arranged on terminal, drooping panicles that have a very elegant appearance. The plants are a little tender when young. What we had used to know as *S. Fortunei* is now called *S. Japonica*. It is a thrifty plant with broad flat corymbs of pink flowers now nearly in full bloom; a variety called *atrosanguinea* is quite deep colored and pretty, and another, *semperflorens*, is denser in the head and lasts longer in bloom than does the typical plant. *Spiraea Japonica alba* is what is generally called *S. callosa alba*, it is a compact bush and now covered with flat corymbs of white blossoms.

SPIRÆA BUNALDA also belongs to the *Japonica* section. It is of dwarf compact habit, about 2 to 3 feet high, fully as much across, has many yellow variegated leaves, and is now covered with flat corymbs of pink flowers. The best of all spiræas of its season.

SPIRÆA DOUGLASI is now and has been for over a week in fine bloom. The flowers are rose colored in dense, terminal, thyrsoid panicles. The variety called *Nobleana* is more vigorous and its panicles are less thyrsoid and more showy, and its leaves less downy on the under side. A dwarf form, 2 to 3 or 4 feet high, called *syriaciflora*, has been in good bloom for nearly two weeks, and is one of the prettiest shrubs now in the garden. Its flowers are rose pink in dense, but not thyrsoid panicles. *Spiraea Sanssouciensis*, another very fine variety of vigorous growth and belonging, I think, more to *Fortunei* than to *Nobleana*, is also in

fine bloom. Its blossoms are as deeply colored as those of *atrosanguinea*.

SPIRÆA ALBA, properly designated as *S. salicifolia paniculata*, is bursting into bloom. A vigorous but neat shrub, with ample terminal panicles of white flowers. *Spiraea crispiifolia* of catalogues is, I believe, *S. hullata*. It is a tiny shrub about a foot high, with deep pink flowers that appear about the middle of June and last all summer.

HYDRANGEAS.—The oak-leaved hydrangea, *H. quercifolia* is in perfect bloom. It has large, thyrsoid panicles of fertile flowers with a good scattering of showy white sterile ones at the outside. It is indigenous to the rocky banks of streams in Georgia and southward, but is perfectly hardy at Philadelphia, and apparently here too, and lives fairly well in sheltered places at Boston. The early flowering form of *H. paniculata* is within three or four days of being in full bloom; the *H. p. grandiflora*, the one so common in gardens won't be in bloom for weeks to come; and the late flowering variety of the typical plant does not yet even show signs of buds forming. *Hydrangea Thunbergii*, a Japanese species, is in splendid bloom. It grows about three feet high and has flat cymes of bluish flowers, the perfect ones towards the middle and the showy sterile ones at the outside. It dies back a little every winter, but that doesn't matter for its roots are perfectly hardy and the young shoots bloom abundantly every summer. *Hydrangea vestita* var. *pubesces*, now past its best, is disappointingly sparse flowered.

STUARTIAS.—The comparatively rare *S. pseudo-camellia* has been blooming for about a fortnight. It is a Japanese shrub of large proportions, fast growing, but neat, full and branchy and very clean. The flowers are white, a little smaller than those of *S. pentagyna*, the American one that is hardy here, and more fugacious. The autumn coloring of the foliage of this Oriental shrub is very fine—gold and crimson. The *S. pentagyna* has single camellia-like crimp-edged white flowers, and it lasts in bloom for a month. It starts to bloom about eight days later than the Japanese species, and lasts in flower two weeks longer.

LESPEDEZA BICOLOR deserves the recognition of every gardener and planter; as yet it is very little known. It belongs to the pea family, comes from northern China and Japan, and is a hard-wooded but graceful shrub about six feet high. Its flowers are small, dark rose-purple and arranged in axillary racemes which are borne in the greatest profusion throughout the month of July. Our plants began to bloom five or six days ago. Do not confound this shrub with *Desmodium penduliflorum* which is entirely distinct and, a month later in blooming.

INDIGOFERA DOSUA, a small pea-flowering shrub from the Himalayas is opening its pretty rosey blossoms. It is not reliably hardy, but in a warm sheltered place it seems hardy enough here.

THE PRIVETS.—The Californian privet (*Ligustrum ovalifolium*) if grown as an isolated shrub and not as a hedge plant blooms splendidly about the first of July. The common European privet (*L. vulgare*) is now mostly done blooming, as is also *L. thota*, a species from Japan and Northern China. This last species is one of the most copious of all, still its flowers are not as showy as are those of the Californian privet, nor is the plant itself so good for hedge purposes. South of

Philadelphia the Japan privet (*L. Japonicum*) is one of the best flowering evergreens in the garden, but it is not quite hardy here.

BENTHAMIA JAPONICA.—This looks exactly like an American flowering dogwood (*Cornus florida*) in full foliage and full bloom at the same time, and might be appropriately termed The Summer Flowering Dogwood. Our plants began to bloom, that is the large showy petaloid bracts assumed their pure white coloring about the 10th of June, and they were in their finest condition between the 13th and 24th of June, and even now there are many perfect satiny blossoms upon the bushes. These shrubs seem to be perfectly hardy, very fine blooming even in the case of small plants, and are well furnished with deep green glossy foliage, and they are easy to transplant. I understand that Benthams and Hooker have now merged the genus *Benthamia* into that of *Cornus*.

BUDDLEIA.—The Chinese *B. lindleyana* is in fine bloom and has been for a week or more, and the Japanese *B. curviflora*, about six days later, is approaching its best. Both are coarse, soft, sappy-wooded, rank shrubs, from 5 to 10 feet high, but desirable in large gardens and parks for their July blooming nature. Their flowers are rose-violet or violet-purple, small and densely arranged in long drooping racemes terminating the arching shoots. *Curviflora* is the coarser growing of the two. The *B. globosa* from South America, and which is grown in England and Southern Europe is not hardy here.

PATIA MACROSTACHYA (*P. alba*), the dwarf horse chestnut, is well furnished with white racemose panicles, but the blossoms are not open yet.

COLUTEA (*Bladder semina*).—These began blooming some weeks ago and will continue in bloom for some time to come. They are not showy, but interesting because of their yellow or tawny pea flowers and inflated seed pods being carried upon the plants at the same time.

CYTISUS CAPITATUS is in full bloom. A dense, broad, branchy shrub about two or three feet high, woolly throughout, and each shoot tipped with a close-set bunch of yellow flowers. Not showy.

YUCCA FILAMENTOSA.—Only a few plants are in full bloom, but the flowers of all will be open inside of a week or ten days. The different plants differ a good deal from one another; the flower stems of some are eight feet high, others only three feet, and they also vary in earliness and size and form of their blossom. Indispensable. Easily raised from seed.

HYPERICUMS.—I cannot get into ecstasy over the shrubby species. When *H. aureum* begins to bloom, as it will in a day or two, it will be lovely, but after a few days when the first open flowers wither and seed pods are formed all its beauty seems to have vanished, and between mopey buds, open blossoms, dead flowers and brown seed pods, it presents rather an untidy appearance.

ILEX LEVIGATA and *I. verticillata* are both in full bloom. The little white flowers are crowded all over their twiggy branches, to be succeeded, we hope, by as many scarlet berries in fall and winter. Although naturally swamp bushes they grow and fruit well in ordinary garden soil.

IPEA VIRGINICA was in its best bloom about the 25th of June, and it is still pretty well speckled with white. This little shrub indigenous to "wet places,

New Jersey and southward, near the coast," is a greater stranger in cultivation than it ought to be. It grows about four feet high, and in its season is densely laden with little racemes of fragrant white flowers.

CEANOTHUS AMERICANUS or red root is pretty well done blooming, but a few days ago it was fine; and *C. ovalis* has been out of bloom for some weeks.

CALYCANTHUS LÆVIGATUS and *floridus* have been blooming more or less since early spring.

SEVERAL SPECIES of *symphoricarpos* are in bloom, but their chief attraction is in their fruit in fall and winter. The elder bushes that were so gay along the roadsides and the field fences are nearly out of bloom. The purple flowering raspberry (*Rubus odoratus*) has its mission in damp, shady places, but is not good enough for the open garden. The wild bush-honeysuckle (*Lonicera trifida*), although past its best, will remain in bloom for some weeks yet.

THE SEASON of *Rhododendron maximum* is about over, but the smooth azalea (*A. arborescens*) of the Alleghenies, and the commoner clammy azalea (*A. viscosa*) have many fragrant blossoms left. *Rhodotypes kerrioides* has begun to bloom again. Handsomely fruited shrubs are also playing an important part in the decoration of our summer gardens, chief among them are the various bush honeysuckles (*Lonicera*) and daphnes, and greatest of all is *Elaeagnus longipes* whose branches are bending under their load of beautiful, bright, cranberry-like fruit.

ROSES.—The red and white *Rosa rugosa* have still a few blossoms and we get a good many flowers from the general garden varieties. From now on, however, Mrs. DeGraw performs her missionary work, and we rely upon this local and almost unknown variety for the bulk of our roses between July and October. Of course the double flowered prairie roses are laden still, but later and more beautiful by far is the plain prairie rose (*R. setigera*) itself which is now in its loveliest estate. The latest of all roses, however, is *Rosa foliolosa*, a single, white flowering species from Texas. Its first blossom of the season opened to-day. It grows only about 15 to 20 inches high, but is withal a thrifty plant, with small, neat and abundant foliage.

WOODY VINES.—The Chinese *Wistaria* is unfolding a second crop of blossoms, and the climbing *hydrangea* of the south (*Decumaria*) is displaying its ample bunches of blossoms up the trunks of supporting trees. The trumpet creeper (*Tecoma radicans*) is still behind, but clematises, woody and herbaceous, are bright and gay enough. The Japanese honeysuckles are past their best, and the American trumpet honeysuckle, and its varieties are recovering from their insect plague and trying to look more cheerful than they did a month ago. But one of the sweetest of vines is the common white jessamine (*J. officinale*) which survived last winter unscathed and is now in vigorous growth and full of delicious white blossoms.

TREES IN BLOOM JULY 4.

When it comes to July we can not reasonably expect to have many trees in bloom, still we have a few to brighten up our gardens, perfume the atmosphere and add variety to the landscape. Among these late bloomers are:

EUROPEAN LINDEN.—Now we have got

an indefinite name, for not only does it include several species but also a host of varieties of these species. The species now in full bloom is *Tilia ulmifolia*; it is the latest of all. The one that was in bloom about eight days ago is *Tilia vulgaris*, and the one that bloomed a fortnight ago is *T. platyphyllos*. The first two have smooth leaves, those of the last named are pubescent on the under side, which is also green.

CATALPAS.—*Catalpa speciosa* came into bloom about the 20th of June. If well treated at all it runs more to wood and less to bloom while young than do the other species. *Catalpa bignonioides* is now opening its blossoms, but they are not full out yet, and *C. Kœmpferi*, the Japanese species, will bloom about the same time as *bignonioides*, and it is the poorest of the lot. I have never seen *C. Bungei* in bloom, and there are several old—never large, that is, tall—plants of it on Long Island.

CHESTNUTS.—Sweet chestnuts (*Castanea*) both in cultivation and the woods are in good bloom. Chestnuts do fairly well here and the Spanish chestnuts ripen moderately well. The "Numb" chestnut blossoms twice a year, but hasn't borne ripe fruit with us yet. The Japanese chestnut trees are not always early fruiting any more than they all are large fruiting, but they seem to be quite hardy.

KEULRETERIA PANICULATA is almost at its best. It is a small tree from northern China, with compound leaves and large terminal panicles of small yellow flowers that now have a very telling effect. These blossoms are succeeded by inflated capsules or seed vessels, which look most as ornamental as flowers. The Dictionary of Gardening tells us to propagate this tree "by cuttings of the young wood in spring, or by layers in early autumn." Considering that it bears seeds in immense abundance, and the seeds germinate with the greatest ease and certainty, who on earth is going to propagate it from layers?

PINUS LAMBERTIANA is just going out of bloom. The only reason for noticing this here is the fact that this Californian giant is the latest blooming conifer in our grounds.

Boston Notes.

The cut flower trade is in the dumps. Pond lilies both pink and blue are now in their prime.

The rose which comes to market in best condition at this season is the *Souv. de la Malmaison*.

Jos. Talley has a seedling carnation, a cross between *Mme. Carle* and *Snowdon*, which appears to combine the productiveness of *Snowdon* with the good quality of *Mme. Carle*.

C. P. Grimmer has removed his store a few doors further down West street. Otis Ruggles has also removed from Tremont to Boylston street. Boylston street will soon rival Tremont as a flower locality.

The Association of American Cemetery Superintendents will hold its annual convention at Boston at the same time as the S. A. F. Their headquarters will be at the American House.

A patch of *Calluna vulgaris* 25 feet long and 14 feet wide has been found growing at the edge of a pond near Halifax, Mass. This is an interesting fact, because rather unexplainable, as there is no sign of any habitation having existed near there and the presence of the heath can not be accounted for.

The Mass. Hort. Society has finally

secured Music Hall for the grand exhibition next August. This disposes of the plan for holding the exhibition on the common, which was originally adopted because it was understood that Music Hall could not be obtained at that time. The premiums offered in the schedule are very liberal, many extra and special prizes having been arranged for on account of the large number of visitors expected. Competition is open to all, and as the number of entries is already very large those desiring to compete for any of the premiums should correspond at once with Mr. J. H. Woodford, chairman of the flower committee, Horticultural Hall.

The Gardeners' and Florists' Club was treated to a most interesting and unique entertainment at the July meeting. Mr. Chas. Storer who has for some years past made a great many photographs and paintings of famous plants and beautiful views in and about the leading greenhouses in this section, exhibited by means of the stereopticon a large collection of these views before the club at Horticultural Hall. Among the pictures which aroused the most enthusiasm were those of some noted cattleyas and cypripediums belonging to F. L. Ames and The United States Nurseries, also views in the grounds of H. H. Hunnewell, Esq., roses from Waban Conservatories, the greenhouses of J. N. May, R. M. Pratt and others, together with some portraits of well known personages, including F. L. Harris, David Allan, W. A. Manda, Wm. Robinson, J. N. May and others. Singing and recitations by members of the club added to the pleasure of the occasion, and it was unanimously voted to repeat the entertainment at some future time.

W. J. S.

Chicago.

James Farrell, one of Chicago's oldest florists, died at his home in this city June 30. Mr. Farrell was born on the green island about 45 years ago. He emigrated to Canada at the age of 25, remaining at Toronto for a short time, but soon found his way to New York City, where he was employed for a time by Mr. Hodgson, who was then located at the corner of Fifth avenue and 39th street. Here Mr. W. B. Farrell (or Doc, Farrell as he was better known) met him and induced him to come to Chicago. This was in 1872, the winter after the great fire. "Doc" Farrell had erected a small shanty on the corner of Wabash avenue and Harrison street, and here James Farrell introduced what was then known as the "eastern style" of making up—that is, arranging flowers loosely and gracefully instead of packing them together in a compact mass. He was one of the best floral artists of the present time, a rapid workman and possessing that most essential qualification of a good florist, the ability to make a handsome and effective arrangement with a poor and limited stock of material. He embarked in business for himself in 1875 in a small one-story frame building on Wabash avenue back of the Palmer House, where he soon succeeded in building up a good business and from which he accumulated some property. For several years past his health has been failing, and though a recent trip abroad to the place of his birth gave a temporary benefit, his old enemy—rheumatism—at last laid him low. He leaves a wife and two sons in comfortable circumstances.

Albert H. Hovey, the veteran seedsman and florist, for upwards of 30 years a resident of Chicago, died at Los Angeles,

THE AMERICAN FLORIST

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Advertisements, 10 cents a Line, Agate;
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No reduction made for large space.

The Advertising Department of the AMERICAN
FLORIST is for Florists, Seedsmen, and dealers in
wares pertaining to those lines ONLY. Please to
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Orders for less than one-half inch space not accepted.

☐ Advertisements for August 1 issue must
REACH US by noon, July 25. Address

THE AMERICAN FLORIST CO., Chicago.

THE SPRING PLANT TRADE.

In this issue appear reports of the spring plant trade from 77 of the larger cities and towns of the country, a majority of the reports having been compiled from data received from several florists in each place. Of these 77 towns 48 report an increase in the total sales varying from 5 to 30 per cent, 22 report them as about equal to recent past seasons, 5 report a small decrease and 2 are unable to make any comparisons owing to the newness of the trade in their cities. It is gratifying to note that nearly two thirds report an increase and only one fifteenth a decrease in the total sales, showing that the plant trade of the whole country has averaged a decided advance in volume. While unseasonable weather resulted in lowering the quality of plants in some sections the reports show that over the whole country quality has averaged somewhat better than usual.

Regarding collections 18 report them as more promptly made than usual, 44 as prompt as usual or satisfactory, and 8 as slower than usual, making the average for the whole country considerably above last year. This is a fairly reliable indication of general prosperity throughout the country, especially when considered in conjunction with the increased sales for ornamental plants are unquestionably a luxury rather than a necessity and people buy them freely only when their income is comfortably in excess of the amount required for what are usually termed the necessities of life.

In the older eastern cities competition is becoming extremely sharp and prices are consequently very low—too low to leave a profit in some cases, unless the cost of production has been brought down to a very low mark in those places. One correspondent says there is no money in growing 4-inch geraniums to retail at 75 cents or \$1 a dozen, and we agree with him, especially as grown by the average florist in small quantities, and if the plants are to be so grown as to give satisfaction to the purchaser when bedded out. The importance of being able to determine when prices have dropped down to, or below, the cost of production is again impressed strongly upon us. If florists knew when they were approaching this line they would be a little more judicious in cutting prices in the heat of competition, and education in this matter will unquestionably prove the best remedy for the evil of ruinously low prices.

A point in the reports which should not be overlooked is the frequency with which an increased call has been noted for hardy herbaceous stuff. The demand for this class of plants is undoubtedly growing.

PLANTS BY MAIL.—A reader writes that a small lot of rooted cuttings ordered by mail from an advertiser in the FLORIST was received in such a condition as to be absolutely worthless through having been packed in a paper box, which had been smashed in about seventeen different ways while in transit. We find it difficult to believe that any advertiser in the FLORIST would be so unwise as to attempt to send plants or rooted cuttings through the mails in paper boxes. Certainly every one sending such by mail knows that there is about one chance in a thousand of a paper box getting through without being smashed to pieces, the dampness which should be present to keep the plants fresh, taking from the paper box what little stiffness it may have had. No one should pretend to do a mail trade without a supply of the light wooden boxes made especially for mailing plants.

A MONTREAL florist says that a cemetery company has erected greenhouses and entered into competition with the florists in supplying plants to lot owners. The cemeteries are exempt from taxation and he asks if something can not be done to stop competition from a body which is thus exempt from bearing its share of the public burden. We can not say what can be done, but it does seem unjust to be obliged to pay taxes on your business and then be subject to the competition of an untaxed corporation. It is very likely that an examination of the charter of the corporation would suggest a line of action, as the powers of an untaxed corporation are always limited and it is probable that the company has overstepped its powers. This is a case for the Montreal Florists' and Gardeners' Club to look into. Here is where organization is of value.

ANNALS OF HORTICULTURE, 1889, by L. H. Bailey, is the title of a neat volume of 250 pages received from the Rural Publishing Co., New York. It is the initial volume of a series designed to preserve in convenient form a record of yearly progress in horticulture, and is a compilation of decided value to the busy workers who must have facts presented to them in as small a compass as possible in order to be available. The lists of introductions during the year will prove exceedingly useful. The chapter on tools and conveniences of the year is an excellent feature, but it is to be regretted that the printer placed the engraving of the pot washing machine taken from the FLORIST, upside down.

PRESIDENT JORDAN calls our attention to the fact that blanks have been sent to florists by a special agent of the eleventh census, and expresses the hope that there will be a full report by all in the trade so that the statistics regarding the profession may be complete. If you have not received a blank, the same may be had on application to J. H. Hale, special agent eleventh census, South Glastonbury, Conn. The statistics which will be thus accumulated will be of material value if complete, and we trust that every florist in the land will not fail to do his share toward making them so.

QUOTE FREQUENTLY readers send us articles and paragraphs clipped from local papers which are not only absurdly untrue, but in many cases viciously misleading to the public and harmful to the trade. We advise readers to send their comments on such articles to the papers publishing them and request a correction of same. While no attention may be paid

to the matter by some papers, we believe the majority will not refuse to insert such corrections. In this way the harm may be partly undone. The FLORIST can do but little good in this direction as it does not reach the people who may be misled by the paragraphs noted.

OUR ANNUAL convention supplement which will be published with our issue of August 15 will contain a sketch map of the city of Boston on which will be prominently indicated the Convention Hall, hotels at which rates have been secured, and many other items of immediate interest to the visiting members. Advertisements for the supplement will be received at usual rates.

OUR COLUMN of "sports" may excite a smile on the part of some of our dignified readers, but we feel assured that none will begrudge the boys a corner in the paper. Good wholesome sport is a relaxation which is of decided benefit to the busy workers in this pushing, hustling age, and should be encouraged so long as it is not carried beyond reasonable limits.

TIME AND LABOR saved is money saved. But you would hardly think this had been accepted as an axiom if you should observe the employes of certain florists slowly plodding along carrying small boxes of soil into the greenhouses for several days, when one man could have done the whole business in half the time with a properly constructed wheelbarrow or cart.

IN RESPONSE to our query as to whether he had found collections better or slower than previous years, a florist in an eastern city somewhat noted for its educational institutions, replied that he "couldn't say as he didn't sell collections." Several others seem to have misconstrued this query, which referred to the promptness with which customers paid their bills.

THE New York Sun of June 15 says there is no truth in the statement that the botanical gardens furnish flowers for half the private entertainments given in Washington, but says further that the beautiful exotics from the government greenhouses are distributed among the members of congress at their personal solicitation.

A VERY FINE form of *Cypripedium caudatum* roseum has recently bloomed with Mr. Wm. W. Lunt, Boston. The upper sepal was 6½ inches and the lower 7¼ inches in length, the pouch 2½ inches long and very broad with the staminate brighl carmine, the petals 33 inches in length.

IN your building and rebuilding don't fail to provide abundance of shed room, and have an entrance through which heavy loads can be hauled right in and material unloaded as near as possible to the place where it will be used.

A PHOTOGRAPH of a large plant of *Pelargonium Gipsy Queen*, bearing 30 trusses of bloom and 16 of buds, has been received from Mr. W. L. Thomas, Augusta, Ky. The photo was taken June 10.

A BEGONIA whose blossoms have "the fragrance of the freesia and something like a ripe apricot," will, it is prophesied, soon appear among the host of novelties.

SEND IN your adv. now for the convention supplement which we shall publish with the issue of August 15.

NOTICE

—OF—

STOCKHOLDERS' MEETING.

CHICAGO, July 10, 1890.

Stockholders of the American Florist Company:

You are hereby notified that the annual meeting of the Stockholders of the American Florist Company will be held in Room 200, Tremont House, Boston, Mass., Tuesday, August 10, 1890, at 3 o'clock p. m., for the purpose of electing directors and officers for the ensuing term, and for the transaction of such other business as may come before the meeting.

J. C. VAUGHAN, Pres.
G. L. GRANT, Sec'y.

IMPORTANT.

CHICAGO, July 10th, 1890.

We, the undersigned Wholesale Cut-Flower dealers of Chicago, hereby agree to close our places of business from

July 10th until September 15th,

on Week Days at 7 p. m.; on Sundays at 12 noon.

Signed, (KENNICOTT BROS.
E. H. HUNT,
FRESE & GRENSENZ.THOS. YOUNG, JR.,
WHOLESALE FLORIST

20 West 24th Street,

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LILY OF THE VALLEY,

And the Choicest ROSES for the fall and winter season.

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ESTABLISHED 1877.

Price List sent upon application.

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Orders to be shipped will receive prompt attention.

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WHOLESALE FLORISTS

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1 Music Hall Place, BOSTON, MASS.

Also entrance from Hamilton Place
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We keep a large supply of Fancies and Carnations always on hand. Return telegrams sent immediately when unable to fill orders.

AUCTION SALES OF PLANTS SPRING AND FALL

Wholesale Markets.

Cut Flowers.

BOSTON, July 9.

Roses, Tea	.....	\$1.00
Fancy	.....	2.00 @ 4.00
Valley	.....	5.00
Pink pond lilies	.....	8.00
Carnations	.....	.50 @ 1.00
Stocks	.....	1.00
Sweet peas	.....	.25
Candytuft	.....	12.50
Smilax	.....	2.00
Adiantums	.....	1.00 @ 1.50
Corn flowers, coreopsis, gypsophylla, candidum lilies, nigella, Japan iris and other garden flowers overland the market.	.....

PHILADELPHIA, July 9.

Roses, Beauties	.....	\$5.00
Mermets, Brides	.....	3.00 @ 4.00
La France	.....	3.00 @ 5.00
Perles, Niphetos	.....	3.00
Gontiers	.....	1.50 @ 2.00
Carnations, long	.....	1.00
Carnations, short	.....	.50
Gladiolus stalks	.....	4.00
Tuberose stalks	.....	5.00
Valley	.....	4.00
Water lilies	.....	.30 @ .50
Sweet peas	.....	.50
Corn flowers	.....	.50
Smilax	.....	20.00
Adiantums	.....	1.00

NEW YORK, July 9.

Roses, Bon Silene	.....	\$1.00
Gontiers	.....	21.00
Perles, Sunsets	.....	5.00
Niphetos	.....	3.00
Mermets, Albany's	.....	4.00 @ 5.00
Brides	.....	4.00 @ 5.00
Cusins	.....	3.00
Waterlilies, Hostes	.....	4.00
La France	.....	4.00
Bennetts, Jacqs	.....	2.00 @ 3.00
Beauties, Hybrids	.....	12.00 @ 15.00
Carnations, long	.....	1.00
Smilax	.....	20.00
Mignonette	.....	.50
Adiantums	.....	1.00

CHICAGO, July 11.

Roses, Perles, Niphetos	.....	\$4.00 @ \$5.00
Gontiers	.....	3.00 @ 4.00
Bon Silene	.....	1.50 @ 2.00
Mermets, La France	.....	5.00 @ 6.00
Brides	.....	4.00 @ 5.00
Am. Beauties	.....	6.00 @ 7.00
Jacqs	.....	8.00 @ 10.00
Bennetts	.....	4.00 @ 5.00
Carnations, short	.....	.75 @ 1.00
Carnations, long	.....	1.00 @ 1.50
Carnations, long, fancy	.....	2.00 @ 3.00
Callas	8.00 @ 10.00
Smilax	16.00 @ 20.00
Valley	2.00 @ 3.00
Tuberose	1.00 @ 2.00
Pansies50

WM. J. STEWART,
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Our stock is cut with special reference to shipping trade, which comprises the greater part of our business. We therefore claim that we are better prepared to attend to the wants of FLOWER BUYERS, outside of Chicago, than any house in the West.

OPEN DAILY: Week days till 7 P. M.
Sundays till 12 M.KENNICOTT BROS.
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We always have choice, Fresh Cut Flowers in season. The best packers in the trade. Orders promptly shipped. Store open until 7 P. M. Sundays until 12 M.

WIRE WORK A SPECIALTY.

Extra designs made to order. Write for price list.

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CUT FLOWERS,
1237 Chestnut Street, PHILADELPHIA.
Consignments Solicited. Special attention paid to shipping. Mention AMERICAN FLORIST.CHAS. E. PENNOCK,
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38 So. 16th Street, Philadelphia, Pa.

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☉Re Seed Trade.

SEED TRADE ASSOCIATION.

ALBERT M. McCULLOUGH, Cincinnati, president. JOHN FOTTLER, Jr., Boston, secretary and treasurer. The ninth annual meeting at Cincinnati, June, 1891.

American vs. Foreign Seed.

It is claimed by many that foreign is better than American seed and that home grown seed cannot be as good, as it is impossible to grow it here as well as in France, Germany or England. Let us consider this matter a little and see if it is really so. The facts seem to be that in these countries there are specialists who grow but a very few varieties and who devote their attention to nothing else. They make a study of these kinds and carefully select and allow to seed only those which are typical of the varieties grown, so, of course, the seed is good. If American seed growers did the same I can see no reason to prevent the results being the same.

One thing which has tended to prevent American specialists from succeeding is, the wholesale condemnation of home-grown seeds and the lauding of foreign by the largemajority of retailers. If they would be a little more judicious in their remarks of this kind and give our specialists some inducement we would have all the good seed that could be used.

As an illustration of how these retailers act I will state a little experience which I had with them this season. Having some pansy plants to sell this spring the retailers were visited and the invariable question was, "was the seed imported?" In receiving an answer in the negative they refused to take or even look at them. Finally one of them happened to see them and took the whole lot. Now these very same retailers wish to have plants for next season from the same strain of seed. The grower has become discouraged and engaged in other branches so it cannot be procured. ALFRED B. COPELAND.

Springfield, Mass.

The Great Debate on Garden Seeds.

The absurdity of that gigantic fraud annually perpetrated on the seedsmen of America is shown again in the debate given below from the New York *Mail and Express* of June 17. Last Thursday the House had under consideration the appropriation bill which contained the item for the Agricultural Department. One of those items was \$100,000 for garden seeds to be distributed by members of Congress.

Upon the reading of this item an amendment was proposed by Mr. Kilgore, of Texas, to the effect that the seeds for distribution shall be sent hereafter to county officials. Mr. Kilgore has a sanguinary name, but he is apparently a pacific person, although he comes from the Gulf State of Texas. He alleges that members of Congress use the seed of the Agricultural Department for electioneering purposes. He does it himself. The government, he says, furnishes seed for distribution, and it is human nature for members to distribute them to the best possible advantage. So far, so good, but Mr. Kilgore complains that the department seed will not go around in his district; that he is able, in fact, to furnish seeds only to one constituent out of every fifteen. Naturally, the other fourteen "kick," and says Mr. Kilgore plaintively, "I am not able to purchase seed for constituents, though I have frequently

been compelled to do so to meet the requirements of the public."

Another view of the case was taken by a Massachusetts member, Mr. Morse—usually known as "Rising Sun Morse." He believes in the distribution of seed by Congressmen. He avers that the present method of distribution has the effect to ally the people more closely to their representatives and to the government. In reply to the statement that the amount of seed given to each farmer would cost him only 5 or 10 cents to buy, he said, with a splendid burst of eloquence: "It is true that the farmer can go and get the seed. That anybody admits, but they do not seem as good to him as the seed he gets from his government. He plants his seed, and all through the summer as he looks at them growing he remembers that the government of the United States furnished them to him. He feels that the government loves its people; that it feels an interest in the success of its agricultural people, and I therefore hope that no different method of distribution will be adopted."

The debate was continued on the lofty plane to which Mr. Morse raised it. Members almost tumbled over each other in their eagerness to express their affection for their agricultural constituents and their eagerness to serve the farmers in their districts. Mr. Kilgore's amendment was ignominiously rejected, and Representatives will continue to sow the seed supplied to them by the Agricultural Department—supplementing the amount when necessary by purchase—broadcast among the farmers of their districts, expecting that it will in due time produce political influence in the shape of their own re-election.

STRONG EFFORTS are being made by interested parties to defeat the McKinley bill so far as it increases duty on seeds. Since the added duty on plants was secured by a single individual it may be that a single individual may remove it from seeds, but why should not the government representatives consult the national trade organizations regarding class legislation.

MR. ARTHUR M. KIRBY, for many years with Messrs. Peter Henderson & Co., was married at New York July 3, to Miss Eva A. Waterman.

PHILADELPHIA.—G. H. Schriver has been admitted as a partner in the firm of Z. De Forest Ely & Co.

News Notes.

SEATTLE, WASH.—The Seattle Floral Co. is building a new rose house 20x94.

NASHVILLE, TENN.—The firm of M. Tritschler & Son has been dissolved, the son retiring.

JAS. DEAN, of Bay Ridge, N. Y., sailed for Europe Saturday, June 21. Mr. Dean will return in time for the convention.

WORCESTER, MASS.—A very excellent display was made at the rose and strawberry exhibition of the local horticultural society June 26.

SYRACUSE, N. Y.—Louis F. Marquisee has built two new greenhouses 18x50 and 10x50. He has now five houses with over 6,000 feet of glass.

MADISON, WIS.—F. Scheibel, who makes a specialty of cut flowers, mainly roses, reports an increased demand of from 10 to 15 per cent the last year.

DENVER, COL.—Street vendors are becoming almost as much of a nuisance here as in the eastern cities. Recently Jaeger roses were offered at 25 cents a dozen.

VENTURA, CAL.—A floral society has been organized here with the object of encouraging the culture of flowers. Two exhibitions will be given each year, beginning with a chrysanthemum show next October.

KANSAS CITY, MO.—Newell & Kidd have a summer window attraction in an alligator about four feet long recently shipped them from Florida. Though it can hardly be called a beauty it attracts much attention from passers.

NORWICH, CONN.—Some of the finer and newer geraniums are here affected by an insect which feeds on the under side of the leaves. It is similar to the verberna insect, only larger. When the plants are bedded out it is not troublesome. It can be killed by fir tree oil.

HACKETTSTOWN, N. J.—Wm. B. Heymann for some years past foreman for Mr. Spangler the Dover florist, has formed a co-partnership with Wm. M. Everitt, and will establish a business here. A greenhouse 26x150 and accessory buildings are now in course of erection.

PROVIDENCE, R. I.—The Rhode Island Hort. Society will hold its annual chrysanthemum show in this city November 5 and 6 next. The exhibition of roses and strawberries given by this society last month comprised the finest collections of fruit and flowers shown here for a long time. Premium lists for the exhibitions of this society can be had on application to C. W. Smith, secretary, 55 Westminster street, Providence, R. I.

HARTFORD, CONN.—There was a magnificent display at the rose and strawberry show of the Hartford County Hort. Society. First prizes were awarded as follows: Best collection of hybrid perpetual roses, not less than 20 distinct named varieties, three each, Stephen Delbar, with 43 varieties. Best 6 hybrid perpetual roses, two each, E. M. Smead. Specimen plant in bloom, Burney E. Beemer. Sweet williams, best display of cut flowers, Miss E. G. Learned. Best floral display, G. William McClintic.

Mammoth Verbenas.

ED. AM. FLORIST.—Your issue of June 15 says that Mr. John F. Rupp writes that one of his Mammoth verberna plants has borne flowers as large as a silver half dollar and wants to know if any other florist has succeeded in growing flowers of such size. Individual florets of that size are certainly very scarce, but we have had perhaps a half dozen seedlings out of an acre grown for seed purposes that were fully of the size named. The Mammoth strain of verberna, it may be remembered, originated with the late Mr. Peter Henderson, who found in his annual sowing of seedlings from which our annual sets of new verbenas are made up, one plant that he called "America," whose single florets would more than cover a 25-cent silver piece. From that single plant originated the seedlings that were afterwards named and offered. In June of 1887 we had an acre of Mammoth verbenas growing for seed purposes, and it was our practice to go over the ground carefully twice a day, and in that year we found the five or six seedlings

that were fully of the size that Mr. Rupp states. We would say, however, that only two of these monstrous ones were perpetuated by cuttings, the habit of growth of the others being such that we discarded them. Possibly Mr. Rupp's variety may be one of that lot, or what is just as likely, he may have sown seed that produced his phenomenon.

ALFRED HENDERSON.

[Florets of the size mentioned are not rare, a very fine white which could not be covered by a silver half dollar was sent out in J. C. Vaughan's set of 1889. We believe specimens of the same size also exist in Dyer's Mammoth strain. We believe other mammoth strains have been sent out independent of the strain which originated as above.—Ed.]

Small Heating Apparatus.

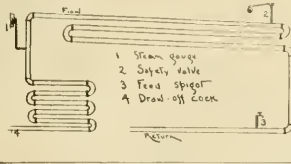
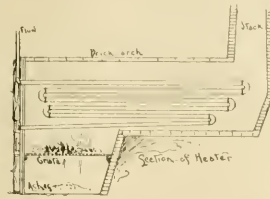
We give below our method of heating a house 100x20 by hot water under pressure.

Build ash box two feet wide and two feet high; length of grate bars three feet. Make folds of pipe as in sketch and lay over the bars in the form of an arch or dog house; height of arch two feet above grate, length of folds 10 feet; two sections of six 2-inch pipes each will be required. Use malleable iron return bends and Ls for the joints in the fire; set the folds and place about one and a half inches of pine shavings over the pipes, then build brick work over the whole. When the fire is started the shavings will burn out and leave the pipes clear; if any remain unburned they must be taken out with a long hook.

A flue of twelve inches diameter may be used, or an upright stack with a close fitting damper to regulate the consumption of fuel; it will take four lines of pipe to each section, that will be eight lines of

pipe for the house. Make line of pipe continuous and not branched, but like the sketch.

Place an inch safety valve at the place shown and steam gauge on the flow pipe; a spigot must be on the return to admit the water, and while filling open the



safety valve to take the air out. Set the valve at 75 pounds and start fire, the valves will soon open and it will throw off all the water it does not require and then the pressure will soon go down and it will work a week without putting in any more water, with a pressure varying from nothing to 50 pounds according to the heat required. Use all 2-inch wrought iron pipe except for safety valves and water leaders; for these such sizes as the hose you have in use will be most convenient.

This arrangement is designed to heat a

house 100x20 to a temperature of 55° to 60° in zero weather. We don't claim any special advantages for this system, though we prefer it to the open 1-inch pipe system, and its low cost brings it within the reach of florists of small means.

Reading, Pa.

HOSKINS & GILES.

Hail Insurance.

ED. AM. FLORIST:—Please give space for our acknowledgement of the prompt and business like manner in which the Florists' Hail Association settled the damage to our greenhouses by hail on the 30th ult. If there are any foolish virgins left among the florists of America they had best get their lamps filled with out delay.

J. W. LOSEY, President.

Oak Grove Cemetery Association.
La Crosse, Wis.

IT CANNOT be denied that the most successful man is he who mixes a liberal amount of brains with his business, and throws open the windows of his mind to new ideas. The men who stick doggedly to the old fashioned methods, who run in a perpetual rut, will invariably find themselves outstripped in the race.

GREENHOUSE CONSTRUCTION.—A valuable series of articles on greenhouse construction by John N. May, liberally illustrated by figures drawn to a scale, appeared in Nos. 88, 90, 93 and 94 of Vol. IV, of THE AMERICAN FLORIST. We will mail these four issues to any address on receipt of 20 cents in stamps.

THE POOREST economy is economy in tools. Have every tool that will increase the effectiveness and speed of your work, and have every one in the best possible condition, that you may reap the full benefit of its assistance.

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LILIUM HARRISII,

ROMAN HYACINTHS,

Freesia, Candidum,

ETC., ETC.

We were the first in the U. S. to arrange Special Extra Early Shipments of Roman Hyacinths.

We can save you money on **IMPORTED BULBS** of every class. Write for prices.



The Problem of Plant Registration.

ED. AM. FLORIST.—The California idea about the way in which to begin to have a system of registering plants has been somewhat misjudged in some quarters, as I am led to infer by the very bright report of the recent nurserymen's convention, which was printed in the AMERICAN FLORIST for June 15. The reason of this is probably that some of the first papers read upon the subject were both lengthy and heavy. But the root of the matter was in them, and there is now a regularly organized committee at work trying to reach some practical result.

I have had the honor to help a little in the work, and I can speak for others also, when I say that all that Californians expect in this matter is to have the national government establish and maintain a plant register. The first report of the special committee recommends first: An American plant register kept by the Agricultural Department; secondly, that this should contain the names and descriptions of all the species and varieties of plants cultivated in the United States; third, that any grower who originates a new variety shall receive a certificate. It recommends also, a bill securing exclusive propagation and sales rights for a limited period, on new varieties of plants.

All the details of the scheme are as yet unsettled; all such details are held by the Californians as subordinate to the main idea, and subject to open discussion, which is greatly desired. A practical working register is only possible upon the most simple plan. Business principles must prevail throughout. The scheme must be one which will command the respect and support of all honest florists, seedsmen and nurserymen, and of the best agricultural journals. The recently organized "Committee of Plant Registration," which has now its offices and its officers, and is at work in San Francisco, is only trying to have the official duty of compiling a plant register added to the work of the department. We wish it to be done in the most simple and efficient manner. We do not wish to infringe upon the work of the botanist. We shall welcome every useful suggestion that comes to us from any source whatever.

CHARLES H. SHINN.

NEW SEEDLING CHRYSANTHEMUM "ORANGE BEAUTY."

This novelty has been in bloom with us last year from September until June and is now in full bloom. We can supply fine plants in 2½-inch pots at \$1.50 per 10 plants, or \$16 per 100. Also a large stock of grand Duke Jasmine, 2½-inch pots, \$5.00, and 3½-inch pots, \$7.00 per 100. Jasmine multiflorum 2½-inch pots, \$3.50 per 100. Bouvardia Beckii and Cleveland, 2½-inch pots, \$3.00, and 3½-inch pots \$4.50 per 100. Alamanda Hendersonii, from 2½-inch pots, at \$7.00 per 100; from 3½-inch pots, strong plants, \$14.00 per dozen, or \$20.00 per 100.

Terms, cash with order or satisfactory reference.
FRANCIS MORAT'S SONS & CO.,
LOUISVILLE, KY.

CARNATIONS.

Hope to have a fine lot of **Field-grown** plants in the **Fall**.

Will make contracts **NOW**.

W. R. SHELWIRE, Carnation Grower,
AVONDALE, PA.

SMILAX.

Fine, strong plants several times cut back, from 2¼-inch pots, \$2.00 per 100; \$15.00 per 1000, 500 at 1000 rates.

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Cor. 10th and Heaton Sts., **HAMILTON, O.**

Bulbs! Bulbs! Bulbs!

We beg to offer the following Bulbs for Early Forcing:

LILIU HARRISII.....	5 to 7 inches in circumference
LILIU HARRISII.....	7 to 9 " "
CALLA ÆTHIOPICA.....	First Size
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Freesia refracta alba, etc., etc. SPECIAL PRICES ON APPLICATION.	

SEEDS FOR PRESENT SOWING.

Extra choice strains of Primula Chinensis, Calceolaria, Cineraria, Pansy, etc., 50c. and \$1 per pkt. An extra selected strain of Highland Mary Pansy, very fine, per pkt. \$2.

DAISY Bellis Perennis fl. pl.....	
" " " Alba.....	50 cts. per packet.
" " " Longfellow.....	
" " " Snowball.....	

V. H. HALLOCK & SON, QUEENS, N. Y.

V. H. H. & Son beg to state they always have a number of first-class gardeners' names on their books waiting for situations, and would be glad to hear from anyone requiring same.

NARCISSUS.

An immense collection and an enormous stock of all the leading varieties, especially of those adapted for forcing. Many acres are now in flower, and I expect I shall have at least

A MILLION

of fine forcing roots to offer this season, and shall be pleased to give prices for any variety for **EARLY FALL** delivery. A preliminary list has been sent to my customers, and my General Trade Catalogue will be ready shortly.

CLEMATIS.

My stock for Fall delivery will be much heavier than previous seasons. The varieties consist of all the best kinds and may be relied upon. Also many other varieties of Hardy and Half Hardy Climbers.

PYRETHRUMS.

Many thousands of these are grown and form one of the most important families of my Florist Flower Department. Also Carnations, Phloxes, Delphiniums, Pansies, Pinks, Hollyhocks, etc.

HERBACEOUS PLANTS.

The increasing demand for this group, both at home and abroad, has necessitated my adding several acres of fresh stock, in addition to my usual stock which is immense. Every good hardy plant is grown in large quantities, and I shall be pleased to quote prices for anything required.

DAHLIAS.

An extraordinarily complete collection, every variety of every section worth cultivating will be found described in my Retail Catalogue, published in April. Trade list of Pot Roots published in the Autumn.

HARDY BULBS.

Many acres grown, forming the most important branch of my Establishment, Anemones, Lilies, Chionodoxa, Gladioli, Begonias, Montbretias, and hundreds of other families too numerous to mention here.

CHRYSANTHEMUMS.

Every variety up to date, including English and Continental, full descriptions of which will be found in my numerous Catalogues, which may be had on application.

THOMAS S. WARE,

HALE FARM NURSERIES,

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Mention American Florist.

R. VAN DER SCHOOT & SON,

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LARGEST GROWERS OF

HYACINTHS, TULIPS, NAR-

CISSUS, SPIRÆA, LILIES

OF THE VALLEY, ETC.

Headquarters for Forcing Bulbs. Wholesale Importers should write us for prices.

Our new Bulb Catalogue is now ready. Will be mailed free on application.



If you would have "good luck" with your forcing stock, try

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Send a list of your wants, stating kinds and quantities, for estimate.

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SURPLUS STOCK.

	Per 100
2000 Verschaffeltii, 2½-in.....	\$ 2.00
2000 Gladioli, 2½-in.....	2.10
1000 Chrysanthemums, best varieties, 2½-in.....	2.00
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500 Tea Roses, 2½-in.....	3.00

Will exchange for 2-year old Jack Roses.
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GARDEN SEEDS

Plants, Bulbs, and Requisites. They are the best at the lowest prices. TRADE LIST issued quarterly, mailed free to the trade only.

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FORCING BULBS OF TRUE STOCKS
in CHOICE QUALITY is of any
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ALL
THE BEST TULIPS,
THE BEST HYACINTHS,
THE BEST DAFFODILS.

If you do not import direct we will refer
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OVERVEEN, near Haarlem, HOLLAND,
Offer to the Trade as usual all kinds of the best
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A full line of **METAL WREATHS AND CROSSES**, either plain or ornamented, loose
PORCELAIN FLOWERS on wire stems, for making up designs, choice **CAPE FLOWERS**,
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For fresh **PALM SEEDS, CYCAS REVOLUTA STUMPS, SUMMER
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Special Catalogues free to applicants. Estimates cheerfully submitted. Satisfaction Guaranteed.

WE SOLICIT YOUR ORDERS FOR
LILUM HARRISII,
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CHINESE SACRED LILIES,
and other Imported Bulbs; also for **AZALEA INDICA**, and choice Three year old
HOLLAND GROWN CLEMATIS.

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—IMPORTER OF—

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IMPORTED HARDY ROSES,
Strong Clematis, Etc., Etc.

Choice Stock Cheap.

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Primula Obconica, strong 2-in	3.50
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25 or 50 of any the above at the 100 rate

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NEW CROP
PALM AND PANDANUS SEEDS.

We have just received a large invoice of the fol-
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Latania Borbonica, 65c. per lb.; \$55 per 100 lbs.
Thrinax elegans, \$5 per thousand seeds.
" **argentea**, \$3 per " "
" **parviflora**, \$2.25 " "
Livingstonia oliviformis, 10 seeds, 75c.; 100 \$5.
Pandanus utilis, 100 seeds, 55c.; 1000 \$7.50.

20,000 feet of sound **Dracena caryx**, "Frurans,
Terminalis, and Farrier. State quantity wanted,
and price will be given on application.

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Rose Plants for Forcing.

Replying to Mr. Herms' query, roses for forcing next winter will produce in proportion to the strength of the plants. If the plants which were when received a month ago "little more than rooted cuttings," have been well cared for, they should be nice thrifty stuff now, and will with proper treatment do very well next winter, but not, of course, as well as would stronger plants. If he bought and paid for merely a rooted cutting he could hardly expect to receive a strong, established plant, but if the parties from whom the plants were ordered were given discretion to choose stock suitable for the purpose wanted then they were much to blame for sending him such small stock at that season. No sane person believes that a boy sincerely able to walk can earn his bread and butter as soon as a good strong one some years older, and the same principle applies to rose plants.

JOHN N. MAY.

OUR CONVENTION SUPPLEMENT will be published with the issue of August 15, and the map and directions it will contain will, we believe, be of considerable value to those attending the meeting at Boston. Exhibitors wishing to call special attention to their exhibits will find the supplement a very effective medium.

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KENTIA,

ARECA.

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Fern Seedlings, in the following varieties,
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LATANIA BORBONICA, 4-inch pots, \$3.00 \$25.00
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Also a large stock of MUSA SUMATRANA, the best of all var. Bananas, \$1.00 each; \$50.00 per 100.
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Fine young plants, from 2-inch pots \$2.00
Small plants, seedlings 1.10
Bellis perennis d. pl. (double daisy), strong seedlings, mixed50
Cineraria hybrida arandiflora, strong seedlings, mixed 1.25
Primula sin. flmb. glob. alba or rubra, strong seedlings 1.50
Eulalia Japonica or Zeltina, strong seedlings 1.25

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German Giant Emperor, 40 shades Per doz. Per pkt.
mixed, Eriant grown \$2.00 \$3.10
Cassia's very large flowered, blotched, Eriant grown 2.00 .10
Bugnot's superb blotched, new, French grown 3.00 .20
Primadieu or French Giant, French grown 2.00 .10
Very fine quality mixed, Eriant grown. Assortment of 20 beautiful varieties 1.00 .10
Primula sin. flmb. glob. alba or rubra 100 seeds, \$1.0015
Catalogue on application. Terms cash.
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My Smilax are from 2½-inch Rose and 3-inch Standard pots. They are cut back several times to make strong, bushy plants; and are in every way a first-class article that is sure to please. A sample of the largest and small size that will be used to fill your order, mailed on receipt of 10 cts.

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Quality is the principle feature in Pansies. My strain will meet all demands in this respect. Some of my customers say they are the best in the country. Give them a trial and judge for yourself.

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Send 8 two cent stamps for Catalogue and Plate.

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in 2½ inch, ready to shift into 4 inch.
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Per liberal trade packet, 25 cents.
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FOR FLORISTS AND AMATEURS.

Extra choice mixed, one packet, 10 cents.
Trade pkt. of 1000 seeds, 30 cents; ½ oz. 40 cents.
Selected or Florists Mixed, each per pkt. 15 cents.
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How to Grow Pansies and Catalogue Free to any address

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PANSY*SEED.

NEW CROP.

ORDERS BOOKED NOW, for delivery in rotation, on arrival of the new seed expected July 15th, at the following low rates:

TRIMARDEAU, choicest French mixed, unsurpassed in brilliancy of color and size of flowers, some measuring from 1 to 4 inches across. Price, per lb. \$25; oz. \$2.50; ¼ oz. \$1.50; ½ oz. \$1; ¾ oz. 75c; pkt. 50c.

Trimardeau, Golden Yellow, ¾ oz. \$1.50; 1-lb. oz. \$1; pkt. 75c.

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BUNOT'S (NEW), spotted, large flowering show Pansies, somewhat smaller than Trimardeau, but of even more exquisite markings and richer colors, pronounced by many the finest strain produced yet. This variety produces few seeds and is yet very scarce. Per lb. \$40.00; oz. \$5.00; ¼ oz. \$1.50; ½ oz. \$1.00; ¾ oz. \$2.00; 1-lb. oz. \$1.50; pkt. 75c.

CASSIER'S 3 and 5 blotted Giant, extra fine. Per ¼ oz. \$1.00; ½ oz. \$2.00; 1-lb. oz. \$1.50; pkt. 75c.

ODIER, or IMPERIALIS, Prize Pansies, 3 and 5 blotted, extra. Per oz. \$4.00; ¼ oz. \$2.50; ½ oz. \$1.50; ¾ oz. \$1.00; pkt. 50c.

FAIST (King of the Blacks) fine for bedding. Per oz. \$1.00; ¼ oz. 75c; pkt. 25c.

EMPEROR WILLIAM, dark blue. Per oz. \$1.00; ¼ oz. 75c; pkt. 25c.

LORD BEACONSFIELD, purple. Per oz. \$1.00; ¼ oz. 75c; pkt. 25c.

Brouze, fine mixed, per oz. \$1; ¼ oz. 75c; pkt. 25c.

White, fine mixed, per oz. 75c; ¼ oz. 50c; pkt. 25c.

Yellow, fine mixed, per oz. 75c; ¼ oz. 50c; pkt. 25c.

All colors, the German mixed, per lb. \$6.00; oz. 50c; ¼ oz. 35c; pkt. 10c.

All colors, improved large-flowering, mixed, per lb. \$10.00; oz. \$1.00; ¼ oz. 75c; pkt. 25c.

Terms Cash.

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NEW GIANT MARKET AND FANCY PANSIES

Have been exhibited everywhere and admitted to be the finest strains at the present time.

"Huge jewels of velvet and gold."—Boston Transcript, May 10th, 1890.

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ROEMER'S SUPERB PRIZE PANSIES.

The Finest Strain of Pansies in the World. **Introducer and Grower of all the leading Novelties.**

Catalogue free on application.

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Pansy Seed

of the best quality, in the 24 best exhibition varieties, offered at very moderate prices.

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PANSIES—EXTRA

THE JENNINGS STRAIN.

This seed is saved only from the finest selected plants, and I warrant it in every respect as being very fine, sure to come true, I make a specialty of Pansies, and will have none but the best. I want every dory who grows pansies to try a package of this seed. One of my best says, "they are the best I have grown in 21 years." They are all of the largest size and fine color; extra fine for winter flowering.

Large trade packet, 25c, 4c, and \$1 each; oz. \$5.

E. B. JENNINGS, Southport, Conn.,
CARNATION, PANSY AND VIOLET GROWER.

VIOLETS.

MARIA LOUISE.

First-class stock from 2 and 2½-inch pots and open ground. Send for price.

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Mont Clare, Ill.

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ORIGINAL AND LARGEST GROWERS OF



Lilium Harrisii Better known as The Bermuda Easter Lily

The Best in the World for Forcing for Winter Flowers.

WE OFFER ONLY STRONG FIELD-GROWN BULBS FROM OUR OWN GROUNDS IN BERMUDA.

THIS VALUABLE LILY IS OUR SPECIALTY.

We grow the bulbs by the acre on our own grounds in Bermuda. We were the first to grow it in large quantities and to offer it at reasonable prices, and we have always been recognized by the trade as

HEADQUARTERS FOR THE BERMUDA EASTER LILY.

Supplying the trade as we do both in this country and in Europe, and we hold by far the largest and the controlling stock of the genuine variety in the market.

The extent of our operations in this bulb alone will be best understood when we state that we expect to sell from OUR CROP of 1890, over a

HALF A MILLION BULBS.

Be sure you get the genuine *Lilium Harrisii*. In order to secure "the true variety," purchase your bulbs from original stock, which is known to be pure. The value of this Lily has led unscrupulous or ignorant parties to plant *L. longiflorum* in Bermuda, or grow it there one season and send it out as *Harrisii*, and dealers should look with suspicion on bulbs offered at prices less than market rates, as the supply has never yet met the demand. "Mixed Bulbs" only being offered at reduced rates.

This is not only the best by far of all lilies for winter blooming, but it is one of the most profitable flowers that can be grown by florists. It is very easily handled, and the flowers being especially effective for decorative purposes, always command large prices. From its name some have thought it was a bulb for florists' use for forcing for the Easter market only. This is not exclusively so; it derives its name from the fact that in Bermuda, grown in the open ground, it blooms at Easter time—hence the name "*Bermuda Easter Lily*"—but by growing it in this country in the greenhouse, with successive lots, it can be had in bloom all the winter from early in December until after Easter. In fact, by special culture, all the year round, or as long as cut flowers are in demand. The fact that it can be forced into bloom by the Christmas holidays adds particularly to its value as it fills in at a time when flowers are usually scarce and in great demand at high prices, but to accomplish this the bulb must be potted early in August, something depending upon treatment and temperature the bulbs we grow in.

For this purpose our Bermuda-grown bulbs are indispensable, as in Bermuda the bulb reaches its highest development, and ripens off perfectly, and is ready for shipment usually by the middle of July—before bulbs in our own country have barely begun to make their growth. Our bulbs being grown in the open ground, in a climate naturally adapted for their perfect growth, are particularly strong and healthy at any time.

New Crop will be ready for delivery early in August. Orders booked for delivery at that date.

Large growers or dealers in this bulb should write us for special prices, stating quantity of bulbs desired, and we will give lowest estimate on the same by return mail.

F. R. PIERSON & CO.,

TARRYTOWN, NEW YORK, U. S. A.

Sports.

Philadelphia.

The florists of this city had a gala day on Thursday, June 26. The occasion was a game of base ball, between the "Florists" and the "Chump Florists," on the grounds of the Lansdowne Athletic Association, which was won by the "Florists," by a score of 22 to 3.

Great rivalry has existed between the clubs for some time, but the Florists demonstrated that they could play ball, as well as cater to the trade of the fashionable world in the floral line. The Chumps caused great merriment by appearing in their new uniforms, prepared especially for the occasion by Manager Rice, on which he has applied for a patent. The features of the game were the fine battery work of Nebinger and Lewis, and Miller and Uber, the batting of Lewis and Miller, and the coaching of Longinett. Both pitchers pitched excellent games, but Nebinger received better support.

After the game, both clubs participated in an excellent lunch, prepared by Managers Heron and Rice. After the refreshments had been served, Manager Rice on behalf of the Chumps, presented to Captain Crawford of the Florists, in a very witty speech, a beautiful shield, with the following inscription:

CHAMPIONS, 1890.

FLORISTS BASE BALL CLUB.

The following is the score:

FLORISTS.	R	H	P	O	E	CH. FLORISTS.	R	H	P	O	E
Cubit, ct.	3	1	0	0	0	Longinett, rf.	1	0	0	0	0
Prior, ss.	3	2	0	0	0	Covert, ss.	1	1	0	2	0
Nebinger, p.	2	0	0	0	0	Miller, p.	1	3	2	0	0
Lewis, c.	4	12	4	1	4	Chittod, 2b.	0	1	1	0	2
Carledge, lf.	3	2	0	0	0	Thomas, cf.	0	0	0	0	1
Crawford, 3b.	2	1	1	0	0	Nesbit, lf.	0	0	0	0	0
Rausch, lb.	1	3	2	0	0	James, lb.	0	0	2	1	4
Kill, rf.	2	2	0	0	0	McMillan, 3b.	0	0	1	0	1
Kreinberg, 2b.	1	0	0	0	0	Uber, c.	0	12	1	1	0
Totals.	22	14	21	9	1	Totals.	3	6	18	6	10

Florists.....7 2 1 0 0 12 X-22
Chump Florists.....0 2 0 0 0 0 0-6
Earned runs—Florists, 4; Chumps, 1. Two base hits—Lewis, Kreinberg and Covert. Base on balls—Nebinger 6. Struck out—by Nebinger, 10; by Miller, 11. Left on bases—Florists, 3; Chumps, 5. Double plays—Rausch and Crawford; Miller, Covert and McMillan. Umpires—Brown and Litzburg. Attendance, 1,200.

Attention Bowlers!

The Gardeners' and Florists' Club of Boston will offer a \$50 cup to be competed for at Boston at the time of the S. A. F. meeting next month. A fine alley has been secured and competition will be open to all Florists' and Gardeners' Bowling Clubs. Full particulars regarding the rules which will govern the contest and the ownership of the cup may be had by addressing Mr. F. R. Mathieson, chairman of the committee on sports of the G. and F. Club, Waltham, Mass.

A Step in the Right Direction.

As a suggestion to other Florists' Clubs throughout the country we print below a document prepared by the Florists' Club of Washington, D. C., which will be presented to the proper authorities for action.

Be it enacted, etc.

Sec. 1. The Commissioners of the District of Columbia are hereby authorized to permit the erection of a structure of glass, iron and wood, the same to be of such architectural design and proportions as shall meet the approval of a board composed of the Engineer Commissioner, the Supervising Architect of the Treasury and the Superintendent of the Botanic Gardens. The said structure to be adapted and used solely for a flower market and to occupy Eighth street south of the line of Pennsylvania avenue to the present market buildings.

Sec. 2. Permission for the erection of said structure shall be granted to the Washington

Market Company upon satisfactory evidence being produced that the said Washington Market Company has entered into an agreement with the Florists' Club of Washington relative to size of structure, internal arrangements, care and maintenance, rentals, and such other matters as properly relate to the purpose of this act, which is to secure to the public a properly conducted flower market where all the advantages of competition and large selection may be obtained.

Sec. 3. The Commissioners of the District of Columbia shall assess and tax said structure and the ground it occupies in the same manner as other real estate is taxed in the said District.

Sec. 4. There shall be no construction of the text of this act to prevent any person who is a florist by profession from renting stands or sales room in the said structure, providing they be not in arrears for former occupancy of the said Market Company's stands, but the said Market Company may give priority of selection of stands, firstly to those who are already lessees of stands in their buildings; secondly to other florists who are residents of the said District; and thirdly to florists living outside of the said District.

Sec. 5. All disagreements which may arise between said Market Company and the said Florists' Club shall be settled by the principle of arbitration.

The Boston Convention.

Following is a list of Boston hotels at which arrangements have been made for delegates to the coming convention of the Society of American Florists. It is arranged according to distance from the convention hall, beginning with the nearest:

NORTHWARD FROM HORTICULTURAL HALL.

Name and Address.	Distance from Hall, per day.
Tremont House, Headquarters.	
Tremont St.	opposite \$3.00-5.00
Parker House,	
School St.	1 sqr. † 1.00-3.00
St. Nicholas Hotel,	
Province St.	½ " † .75-1.00
Boston Tavern (guests only),	
Washington St.	1 " † 1.00-2.00
Sherman House,	
Court Square.	1½ " † .75-2.00
Young's Hotel,	
Washington St. & Court Sqr.	2 " † 1.00-3.00
Crawford House,	
Scollay Square.	3 " † 1.00-2.00
Quincy House,	
Brattle St.	3 " * 2.50-3.00
American House,	
Hanover St.	4 " * 2.50
Revere House,	
Bowdoin Square.	¼ mile † .75-1.50

SOUTHWARD FROM HORT. HALL.

Adams House,	Washington St.	4 sqrs. * 3.00
Hotel Reynolds,	Washington St.	4 " * 3.00
Vieth's Hotel,	Tremont St.	5 " † 1.00-2.00
Tremont Hotel,	United States Hotel,	½ mile † 1.00
Beach St.		* 2.50-3.00
Hotel Brunswick,	Boylston St.	1½ " * 3.50-5.00
Hotel Vendome,	Commonwealth Ave.	1½ " * 3.50-5.00
* American plan. † European plan.		

Rooms may be engaged now on application to any member of the committee on hotel accommodation. The committee is as follows: Wm. J. Stewart, 67 Bromfield street, Boston; M. H. Norton, Berkeley street, Boston; P. Welch, 165 Tremont street, Boston; J. Frank Curtis, Newtonville, Mass.; J. J. Cunningham, Readville, Mass.

The Reporter and the Simberbi.

The following clipping from a Boston daily purports to describe a bed painted at the city institutions at Deer Island: "The central design of the surface work is a large G. A. R. badge 12x6 feet. Every detail of the familiar insignia is faithfully worked out. The eagle which forms the clasp in the badge is composed of altanatheria ora and the crossed cannon beneath it are tropholibes, the sword being of St. Helena. The cannon balls are of simberbi and the bars of the flag are alternately of red altanatheria and white oca. The ensign of the flag is represented by a square of very striking blue imported flowers." W. J. S.

A. BLANC.

ENGRAVER FOR FLORISTS.
PHILADELPHIA, PA.



Electro of this Cut, \$2.00.

LARGEST STOCK OF ELECTROTYPE OF PLANTS AND FLOWERS FOR FLORISTS' CATALOGUES, ETC. Complete Catalogues 50c. deducted from first order. Agency for the sale of Electro of MESSRS. VIL-MORIN ANDRIEUX & CO. (Paris.)

PRIMULA SEED.

Primula (theonas) pkt. (1000 seeds), \$.75
Primula Flabunda pkt. (100 seeds), .25
Coleus Verschaffelti, Golden Bedder per 100, 3.60
Coles in variety per 1000, 3.00; " 2.50
Alternanthera, 3 varieties " 3.00

I. N. KRAMER & SON,
MARION, IOWA.

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giving a complete and accurate list of the Florists, Nurserymen and Seedsmen of the United States and Canada is

NOW READY.

Price, \$2.00.

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BEAUTIFUL LASTING & CHEAP
HARTMAN'S
STEEL PICKET TREE GUARDS
FOR ORNAMENTAL & FRUIT TREES
STEELPICKET FLOWER GUARDS
FOR FLOWERS, SHRUBS, ROSES, BUSHES, SMALL FRUIT TREES
JUST THE THING FOR LAWN OR GARDEN.
LIGHT & BRILLIANT IN APPEARANCE.
DO NOT BURN OR Melt IN FIRE. ALKALI RESISTANT.
WILL NOT HARM INSECTS OR ORNAMENTAL
LOW COST AND LAST A LONG TIME.
WILL DOUBLE VALUE OF FLOWERS IN FRUIT.
GIVE YOUR LEADER A TRIAL ORDER BY MAIL.
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Imported and Domestic make.

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Dealers in Florists' Supplies,
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GENUINE MILTTRACK

10 lbs. 25 lbs. 50 lbs. 100 lbs.
\$1.20 \$2.55 \$5.00 \$8.00

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The Finest of all Shade Trees. Orders booked now for Fall Delivery.

Sugar Maples, 4 to 6 in.	per 1000	\$1.00	per 10,000	\$30.00
5 to 8 feet, per 100		500		1000
Sugar Maples, 5 to 8 "		\$10.00	\$27.50	\$50.00
Scarlet Maples, 5 to 8 "		10.00	30.00	55.00
Water Maples, 5 to 8 "		8.00	25.00	45.00
White Ash, 5 to 8 "		8.00	25.00	45.00

Evergreens in variety. Submit list for quotations on anything needed.

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A book which tells how to make them and shows how they look. Fifty tinted plates of approved designs, in fine shape for showing to customers in place of the bare wire designs; it "gets there" much better, and looks pretty while doing it. It is a good investment for any working florist at **\$3.50**, postpaid, and can be had of

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These fine plates—seventy-five in number—are now offered to the Trade.

They will help you to better priced orders for designs, bouquets, etc., as they give customers an exact idea of what to expect for their money. They will educate to the making up of more stylish work.

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Write for Catalogue with full description and prices.

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BUFFALO, N. Y.

SMILAX.

2000 EXTRA FINE PLANTS. 2000

Price, \$3.00 per 100; \$25.00 per 1000. All from 3-inch pots and warranted first-class.

20,000 Carnations, field grown. Ready in Sept.

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NEW CROP 1890.

EVERGREEN CUT FERNS

Especially for Florists' Use.



FANCY.

DAGGER

Single Thousand, \$1.50. Five Thousand, \$6.25.
Ten Thousand, \$10.00.

SPECIAL ATTENTION PAID TO SUPPLYING THE WHOLESALE TRADE.

Sample lot of 250 Ferns by mail, postpaid to any part of the U. S. for 75 cts.

White Daisies in their season, 75c. per 1000; 10,000, \$5.
Bouquet green, \$2.00 per bbl., or \$5.00 per cwt.
Bouquet green Wreathing, from 3 to 5 in. diameter, from 3 to 10 cts. per yard.

Sphagnum Moss, long clean fibre, dry or green, \$1.00 per bbl.; 6 bbls. \$5.00; 20 bbls. \$15.00; 100 bbls. \$50.00.

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DEALER IN FLORISTS' SUPPLIES,
HINSDALE, MASS.

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CONVENTION * SUPPLEMENT.

Our Annual Convention Supplement
will be published with the

AUGUST 15 ISSUE.

It will contain a sketch map of the city of Boston, give locations of Boston Hotels, with rates at each one, directions to reach points of interest, and other notes of value to visiting members.

ADVERTISEMENTS

for the Supplement should be received by **August 7 at latest**, and as much earlier as possible. **Rates** same as in the body of the paper: 10 cents per agate line; page \$42; half page \$21; column \$14; half column \$7; inch \$1.40.

Being mailed with the August 15 issue it will reach members before they start for the Convention, and will be their friend, philosopher and guide on the way to and during the meeting. Extra copies will be distributed at the Convention.

SEND IN YOUR ADVERTISEMENTS EARLY.

AMERICAN FLORIST CO.,
54 La Salle Street, CHICAGO.

Bonnets of Natural Flowers.

The season's belle is appearing at the theaters and at the last spring festivities in novel guise. Her evening bonnet is nothing more than a horseshoe fillet of wires which she has carefully filled in before leaving home with mountain laurel freshly gathered or lilacs or roses. One young woman who sat in front of me a few nights ago was garlanded with natural sprays of yellow honeysuckle and the effect was quite bewildering until the last act, when the poor flowers drooped under the combined influence of heat and tragedy. If the fashion becomes in any way general there will have to be florists next door to theaters, so that when one sex goes out between the acts for liquid refreshments the other can get its bonnet freshly and fragrantly decorated. Under this system it might even be possible to follow a play with sympathetic headgear; non-committal flowers like daisies or buttercups for the first act, passion flowers for those intermediate; mignonette, forget-me-nots, Bride roses or whatever the drama itself might suggest as most appropriate for the closing scenes. The proper order of flowers might even be indicated on the programmes. Seldom has a fashion been started with such chances of entertaining developments, and yet the chances are it will not go far. Few people take up a whim that is so extreme.—*Brooklyn Times*.



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FOR ALL CLASSES OF GREENHOUSES
EITHER FOR TOP OR SIDES.

Awarded the only Certificate of Merit
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You have not tried HUGHES' SOLUBLE
FIR TREE OIL,

And that you want an effective Insecticide, then do what other florists of experience and wisdom have done before you, and order at once a trial gallon. Read the previous numbers of the *FLORIST* to find out what it will do. Dozens and dozens of American testimonials have confirmed what I claim for it.

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Put up in 1 quart tins, \$1.00.

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made by the latest improved machinery, are better
and cheaper than those made by the old way. Price,
P. O. B. cars here, free of charge:
2-inch, per 100, \$2.25 7-inch, per 100, \$3.50
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All pots shipped at fifth-class frt. rates. Terms cash.

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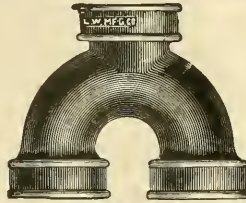
Large quantities of our Pipe are in use in Green-
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refer as to its excellent quality.

Pipe can be easily put together by any one, very
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GET THE BEST!

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SHEAVES a specialty. Write for price list.

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The best device ever invented for laying putty.
With this you can make old leaky sash perfectly
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FOLLOWING DIMENSIONS:

- 1st. Give the number of sashes to be lifted.
- 2nd. Give the length and depth of sashes, (depth
is down the roof.)
- 3rd. Give the length of house.
- 4th. Give the height from the ground to the comb
of roof.
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SASH BARS

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TRAP

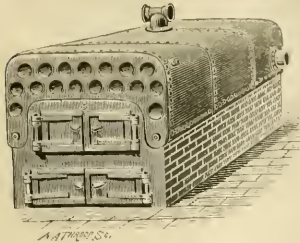
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**HOT SASH
VENTILATORS
WRITE FOR PAPER**

**CASH IN
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WE CARRY
A FULL STOCK
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12 14 and 16 foot lengths.**

**FULL SIZE
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SASH BARS

VENTILATORS, RIDGES, GUTTERING
AND LUMBER.

NO WIDE-AWAKE FLORIST need be told
it will pay him to use Sash Bars, etc. made from

— CLEAR CYPRESS. —

Bars all Shapes up to 20 feet long.

Send for circulars and estimates.

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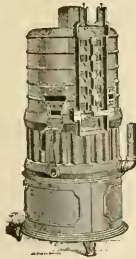
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THE WHILLDIN POTTERY COMPANY,
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We will allow a discount of 5% on all orders for
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Size.	Price of 1000.	No. in Crate.	Credit Crate.	Cash Crate.	Size.	Price of 1000.	No. in Crate.	Credit Crate.	Cash Crate.
1 1/4 in.	\$2 88	4000	\$12 00	\$11 50	3 1/2 in.	\$7 50	770	\$6 00	\$5 75
2 "	3 32	3168	11 00	10 50	4 "	9 25	570	5 50	5 25
2 1/4 "	3 75	2400	9 50	9 00	5 "	15 50	340	5 50	5 25
2 1/2 "	4 25	1890	8 50	8 00	6 "	25 00	168	4 50	4 25
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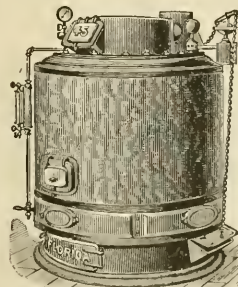
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Can be operated at HIGH or LOW pressure.

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Cahill, Collins & Co., St. Louis, Mo. CHICAGO.



Save Your Coal and INSURE Your
PLANTS and FLOWERS
STEAM and HOT WATER
FLORIDA HEATERS

FOR GREENHOUSES.

19 sizes for Steam, 14 sizes for Hot Water, 15 sizes for Soft Coal
THOUSANDS AND THOUSANDS IN USE.

Has a Magazine Feed. Throws out No Gas. Saves 25 per
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PIERCE, BUTLER & PIERCE MFG. CO.
SYRACUSE, N. Y., U. S. A.

**FLORISTS' HAIL ASSOCIATION
OF AMERICA.**
Insures Greenhouses against damage by hail. For
full information, address
JOHN G. ESLER, Sec'y, Saddle River N. J

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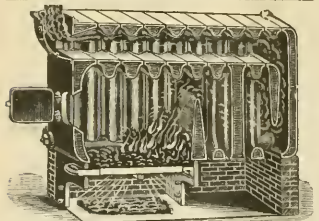
OUR TRADE DIRECTORY.**AMERICAN FLORIST CO., 54 La Salle St., CHICAGO.**

Index to Advertisers.

Advertising Rates, etc.	596
Allen, W. S.	597
Bayersdorfer H. & Co.	606
Blanc A.	604
Boek Theo.	602
Brackenridge & Co.	602
Brague L. B.	605
Brown & Candell	595
Buxton Geo E.	605
Carmody J. D.	598
De Veer J. A.	601
Devine's Boiler Wks.	607
Diez, John L. & Co.	607
Dillon, J. L.	595
Dreier, H. A.	606
Fisher Bros & Co.	602
Flak Chas H.	597
Frese & Grosvenor	607
Gardner J. & O'Connell	605
Germond & Cosgrove	595
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Hales, H. W.	606
Hallock, V. H. & Son	600
Hammond, Benj.	597
Hammond & Hunter	597
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Harland W. B.	604
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Herendeen Mfg Co.	605
Herr, Albert M.	602
Hildesheim C. M.	602
Hilfinger Bros.	608
Hippard E.	606
Hitchings & Co.	608
Hooker, H. M.	606
Horan, Edw. C.	597
Hoyt R. D.	601
Hudson John M.	607
Hughes E. G.	606
Hulsebosch A.	601
Hunt E. H.	597
Hunt M. A.	595
Ives, J. H.	606
Jennings E. B.	603
Johnson & Stokes	606
Joosten C. H.	601
Jurkens W. A.	597
Kennelott Bros.	597
Krauer I. & Son	604
Krick, W. C.	608

ONE way to make money is to take good care of the tools about the place. When these are permitted to rust out and become otherwise injured by lack of proper care the owner is losing money which could easily be saved. Another way is to have the hotbed sash, now not in use, piled up under cover with a strip of wood between each one to permit a circulation of air between them so that decay of the wood will not be incited by dampness.

THE ENTIRE STOCK of the new canna raised by M. R. Catlin, of Richmond, Va., has been purchased by V. H. Hallock & Son. It is of dwarf habit with orange scarlet flowers edged with gold.

**A CARMODY BOILER**

Will Cost Less, Use less Fuel, and has more advantages than any other Boiler in the market.

Send for Descriptive Catalogue.

J. D. CARMODY,
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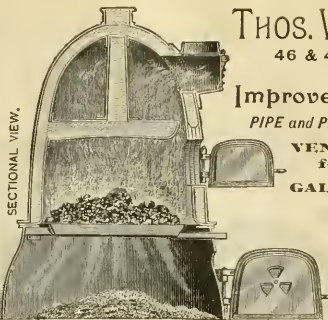
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**GREENHOUSE HEATING AND VENTILATING.**

Superior Hot Water Boilers.

JOHN A. SCOLLY,
74 & 76 Myrtle Ave., Brooklyn, N.Y.

Send for Catalogue.



A thoroughly Portable Span Roof Greenhouse, 12x8 feet, with Boiler House 4x4 feet. Heating Apparatus and Ventilating Rods included, put up complete (freight prepaid) within ten miles of New York City for \$425.00, or delivered on cars in New York for \$260.00, and any gardener or ordinary mechanic can erect it in one day.

THOS. W. WEATHERED'S SONS,

46 & 48 MARION STREET, NEW YORK.

MANUFACTURERS OF

Improved Boilers (Shaking Grates),
PIPE and PIPE FITTINGS, for heating Greenhouses, &c.

VENTILATING APPARATUS,
for raising Sashes in Greenhouses.
GALVANIZED SCREW EYES
and **WIRE for Trellis Work.**

— ALSO —

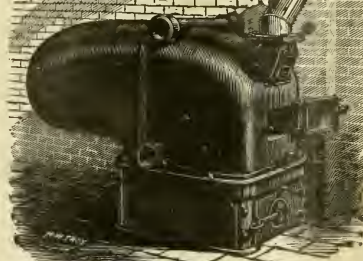
Horticultural Builders.

Conservatories, Greenhouses, &c.,

Erected in any part of the United States or Canada.

Greenhouse Heating AND Ventilating

HITCHINGS & CO.



233 Mercer Street, New York.

Five Patterns of Boilers,
Eighteen Sizes,

Corrugated Fire Box Boilers

Saddle Boilers,

Conical Boilers,

Base Burning Water Heaters

Perfect Sash Raising Apparatus.

Send 4 cents postage for Illustrated Catalogue.

SPHAGNUM PACKING MOSS, in bales.

GREEN ORCHID MOSS, in barrels.

FIBROUS PEAT, FOR ORCHIDS, in sacks.

Tree and Plant Labels of all kinds, printed, painted or plain.

MAILING BOXES.

Wire, Toothpicks, and all kinds of Nurserymen's and Florists' Supplies.

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BATAVIA, ILL.

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A Copy of our New

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PRICE, \$2.00.

AMERICAN FLORIST CO., 54 La Salle St., Chicago.



Reduce your Coal Bills

THE FURMAN STEAM HEATER

ESPECIALLY ADAPTED FOR WARMING GREENHOUSES.

Gives a most uniform heat night and day. Can be run with less attention, and a SAVING of fully 20 to 25 Per Cent. in fuel over any other method. Burns HARD or SOFT COAL. Endorsed by leading florists. Send for full illustrated Catalogue, showing how to pipe and heat a house by steam.

Address HERENDEN MANUFACTURING CO., GENEVA, N. Y.

THE NEW FURMAN HOT WATER BOILERS

BURN PERFECTLY SOFT COAL. 56 DIFFERENT STYLES AND SIZES.

Extract from OFFICIAL REPORT of the test made last winter by the Michigan Agricultural College:

"Our greenhouses are each 20x50 and 10 feet high at the ridge. They were easily kept at 50 to 60 degrees on an average DAILY consumption of 88 LBS. OF COAL during Dec., Jan. and Feb. The temperature of smoke was practically the same as water in flow pipe, and your Boilers proved in every way very efficient."

BE SURE AND GET OUR PRICES AND NEW CATALOGUE

Florists' Letters.

Emblems, Monograms, Etc. These letters and designs are made of the best immortelles, wired on wood or metal frames, having holes drilled in them to insert tooth-picks, by which they are fastened to the design. Send them a trial. You will find these goods to be superior to any in the market. PAT'D AUG. 4, 1888.

NOTE—All infringers or imitators of the above letters and designs will be prosecuted to the fullest extent.

Send for Sample.
2 in. purple . . . per 100, \$3.00
Postage, 15cts. per 100.

W. C. KRICK,
1287 Broadway, Brooklyn, N.Y.

AGENTS:
J. C. VAUGHAN, Chicago, Ill.; H. B. BAYERSDORFER & Co., Phila., Pa.; EDWARD S. SCHMID, Washington, D. C.; JAMES VICK, Rochester, N. Y.; J. A. SIMMERS, Toronto, Ont.

Mention American Florist.

THE AMERICAN FLORIST



America is "the Prow of the Vessel; there may be more comfort Amidships, but we are the first to touch Unknown Seas."

Vol. V.

CHICAGO AND NEW YORK, AUGUST 1, 1890.

No. 120.

THE AMERICAN FLORIST

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SOCIETY OF AMERICAN FLORISTS.

SIXTH ANNUAL MEETING,

AT BOSTON, MASS.,

August 19, 20, 21, 22, 1890.

J. M. JORDAN, St. Louis, Mo., president; M. H. NORTON, Boston, Mass., vice-president; W. J. STEWART, 67 Bromfield St., Boston, Mass., secretary; M. A. HUNT, Terre Haute, Ind., treasurer.

CONTENTS.

Boston in August.	609
Annual exhibition Mass. Hort. Society.	610
The trade exhibition.	610
Horticultural Hall, Boston (illustration).	610
Symbolic bedding, Public Garden, Boston.	610
The bowling contest.	610
New York to Boston.	610
Philadelphia to Boston.	610
Chicago to Boston.	610
Convention points.	611
Boston hotels.	611
View in Public Garden, Boston (illustration).	611
Philadelphia.	612
Boston notes.	612
Bunker Hill monument, Boston (illus.).	612
Chicago.	613
Long Island notes.	613
Commonwealth Ave., Boston (illustration).	613
Gateway to Forest Hills cemetery Boston (ill).	614
Wild flowers from Alabama.	615
Pavilion at Wellesley, Mass., (illustration).	615
Roses—Hybrid remontants for early forcing.	616
Bedding geraniums.	617
What's its name.	617
Horticulture at the World's Fair.	617
Minot's Lodge light house, Boston (illus.).	617
Chrysanthemums—seasonable notes.	618
Parasite on the rose louse braconid.	618
Mammoth verbenas.	618
News notes.	620
Seed trade.	622
Leaves of advice from a limb of the law.	622
Scarcity of white flowers.	624
Cleveland.	626
The amateur vs. professional.	628
Foreign notes.	630

RAILROAD RATES.—To secure the rate made by the passenger associations when going to the Boston convention this month you will pay full fare going and when purchasing your ticket ask for a certificate of such purchase from the agent selling you the ticket. This when countersigned by the secretary at the convention will be an order to the Boston agent to sell you a return ticket at one third fare. Ticket agents are supplied with blank forms for the certificates.

THIS ISSUE completes the fifth volume of the AMERICAN FLORIST which shows an increase of 22 pages over Volume 4.

Boston in August.

The approaching visit of the S. A. F. to the Metropolis of New England is doubtless looked forward to by many of the members with much pleasant anticipation. Boston is in many respects the most interesting city in America, and those of our readers who may be fortunate enough to attend the convention which is to meet there this month will find, in addition to the advantage of participating in what promises to be a most notable meeting, much in the city and its surroundings to fully occupy all their time.

We present herewith a few views of interesting spots in and about Boston. Horticultural Hall is the property of the Massachusetts Horticultural Society, the leading horticultural society in this country and probably the wealthiest organization of its kind in the world. Here is located the splendid horticultural library of the society, comprising upwards of 6,000 volumes. The building contains two large halls, both of which have been generously placed at the disposal of the S. A. F. for their Boston meeting by the Mass. Hort. Society. The sessions will be held in the upper hall and the customary trade exhibit in the lower hall. The horticultural society still further honors the national society by changing the date of its annual exhibition of plants and flowers, so that it will take place at the same time as the meeting of the S. A. F. This exhibition will be held at Music Hall, one block distant from Horticultural Hall and will certainly be a great treat for the visitors.

A few rods from Horticultural Hall is the famous Boston Common. Crossing the common we come to the Public Garden, a most charming spot, which has been heretofore fully described in these columns and of which we herewith present a view. Starting from the Public Garden and running westerly through the wealthy "Back Bay" section of the city is Commonwealth avenue, 250 feet wide, which is claimed by Bostonians to be the finest residence street in the world. Our illustration shows a small portion of it.

No trip to Boston is complete which does not include a visit to Bunker Hill Monument. Its history is too well known to require any description here. It is situated less than two miles from Horticultural Hall and horse cars for the monument pass the hall every few minutes.

Two beautiful cemeteries of Boston, Mt. Auburn and Forest Hills, are well worthy of a visit. Our illustration shows a portion of the gateway to Forest Hills cemetery, and gives a good idea of the luxuriant growth of the Ampelopsis Viticuli with which it is covered, and which is used so extensively about Boston that it has come to be generally known as "Boston Ivy."

About 15 miles from Boston is the most beautiful private estate in America, that of Mr. H. H. Humewell at Wellesley, and it has been whispered to us that a trip to this enchanted land is one of the many enjoyable things planned by the Boston brethren for the entertainment of their visitors this month. Our illustration shows a new pavilion which has just been erected by Mr. Humewell. It overlooks the famous Italian Gardens and Waban Lake. In the distance may be seen a portion of Wellesley College.

The last of our views is famed Minot's Ledge Lighthouse which stands guard over the entrance to Boston harbor. The tower is 88 feet high and stands upon a rock which is hardly exposed even at low tide. In point of peril and difficulty in building, tragic history, cost and usefulness it can be compared only to the famed Eddystone, which in many respects it resembles. Two keepers are always on duty here, and it sometimes happens, especially in the winter season, that for weeks at a time communication with the main land is impossible. The rush of the sea herein stormy weather is tremendous.

To those who reverence antiquity and are interested in the early history of our country, Boston is full of interesting spots, many of them world famous, which have been jealously guarded through successive generations against the encroachments of modern improvements. We need only to mention Panel Hall, the "cradle of liberty," the Old State House, the Old South Church, the ancient church on Salem street in whose tower hung Paul Revere's famous signal lantern, the Old Granary Burying Grounds, where rest Paul Revere, John Hancock, and many other notable characters, and the old North End with its narrow, winding streets, quaint old buildings and other relics of colonial days. Then there are the noble universities which give to Boston its pre-eminence as a center of learning. Here too are the homes and the haunts of Longfellow, Lowell, Whittier, Hawthorne, Holmes and a host of the chief poets and philosophers of America. While the older portions of the city bear out fully its reputation for tangled and narrow streets, the more modern portion of Boston is laid out regularly in broad and beautiful avenues.

Particularly interesting to florists and horticulturists are the many parks, and public and private gardens which abound here. The Arnold Arboretum and Harvard Botanic Gardens will no doubt be magnets of strong attraction for many of the brethren. Among Boston institutions we must not fail to mention the Gardeners' and Florists' Club which is giving its best time and effort to help make the Boston meeting a success. Arrangements are being made by a competent committee of the G. and F. Club whereby visitors wishing to go to any

point of interest can be furnished with all necessary information or an escort.

Annual Exhibition Mass. Hort. Society.

In this exhibition, which will be held during convention week, competition is open to all and no entry fee is required. All exhibitors will be welcome wherever they may come from, and it is to be hoped that all who can possibly do so will enter in some of the classes. We append a list of the prizes offered.

All articles for competition and exhibition must be ready for examination by the committee at 12 M. on Tuesday, August 19. The exhibition will be open to the public at 9 P. M. on Tuesday, and will close at 9 P. M. on Friday.

PLANTS IN POTS.

Special Prizes.

H. H. Hunnewell Prizes.

No.		
305	Coniferous Trees not Natives of New England—Display in pots or tubs, named	\$15 \$10

Special Prize, by R. & J. Farquhar & Co.

306	Annuals—Best display, not less than 100 vases, a piece of plate of the value of	25
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Special Prizes, offered by the Society.

307	Palms—Pair, in tubs not less than 24 inches in diameter.	15	10
308	Pair, in tubs not less than 20 inches in diameter.	12	8
309	Pair, in tubs not less than 16 inches in diameter.	10	6
310	Pair, in pots not less than 12 inches in diameter.	8	5

Regular Prizes.

311	Greenhouse Plants—Six greenhouse and stove plants, of different named varieties, two <i>Crotus</i> admissible.	30	25	20
312	Single plant for table decoration, dressed at the base, only one entry admissible.	10	8	6
313	Specimen Flowering Plant—Single named variety.	8	6	
314	Ornamental Leaved Plants—Six named varieties not offered in the collection of greenhouse plants, <i>Crotus</i> and <i>Dracenas</i> not admissible.	20	15	12
315	Single specimen, variegated, named, not offered in any collection.	6	5	4
316	Caladiums—Six named varieties.	6	4	
317	Ferns—Six named varieties, no <i>Adiantum</i> s admissible.	10	8	6
318	<i>Adiantum</i> s—Five named varieties.	8	5	4
319	Tree Fern—Single specimen, named.	10	8	6
320	Lycopods—Four named varieties.	8	4	
321	<i>Dracenas</i> —Six named varieties.	8	6	
322	<i>Crotus</i> s—Six named varieties, in not less than 12 inch pots.	10	8	6
323	Six in 6 inch pots.	6	5	4
324	Cycad—Single plant, named.	10	8	6
325	<i>Nepenthes</i> —Three plants, named.	6	5	
326	Orchids—Six plants, named varieties, in bloom.	12	10	
327	Three plants, named varieties, in bloom.	8	6	
328	Single plant in bloom.	4	3	

Theodore Lyman Fund.

329	For the best Floral Design, and best kept for three days, to be examined each day, and the prizes awarded the last day, the Lyman Plate, value.	35	30	25
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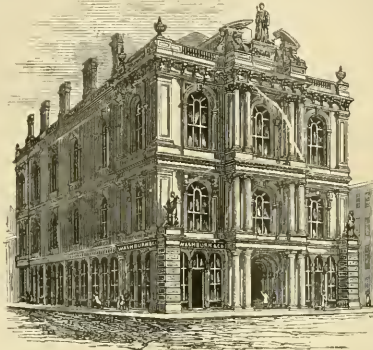
Other Special Prizes.

Valuable special premiums will be offered for seedling verbenas by Peter Henderson & Co., for cannas and gloxinias by H. A. Dreer, and for items not yet named, by J. C. Vaughan, John Gardiner and the Society of American Florists.

The Trade Exhibition.

The number of applications for space at the exhibition has been so great that Horticultural Hall is not large enough to accommodate them all. It has been found necessary therefore to procure additional room, and Bumstead Hall has been secured. In this hall will be placed all the boilers and heavy goods, and this arrangement ensures abundant space for all who wish to exhibit. Bumstead Hall is one block from Horticultural Hall and

is on the ground floor of Music Hall, where the great horticultural exhibition is to be held, hence it is very central and desirable. Being on the ground floor heavy goods can be easily placed. For space in either hall address at once N. F. McCarthy, 1 Music Hall Place, Boston.



HORTICULTURAL HALL, BOSTON.

Symbolic Bedding at the Public Garden.

The formal bedding in the Public Garden is very elaborate this year and already attracts much attention. There are over sixty beds representing the badges of the various army corps scattered here and there throughout the garden, the details of each being very accurately worked out in echeverias, alternantheras, crassulas and other plants of like character, the whole showing a vast expenditure of patience and skill. Each bed is relieved by a background of dwarf conifers or palms and the effect is very pleasing. This public compliment in honor of the great G. A. R. demonstration will be highly appreciated by the "boys in blue." The rhododendrons in the garden have made a remarkably fine growth this year, and the roses too have been unusually good. The dry spell seems to have met the approval of the geraniums, they are a perfect blaze of bright color. The grass however, is woefully brown and scorched and unless soon relieved by copious rain it is likely that the visiting florists will get but a sorry impression of Boston's summer dress. It has been several years since this section has suffered so severely from drought.

W. J. S.

The Bowling Contest.

All teams wishing to take part in the great bowling contest at Boston should communicate with Mr. F. R. Mathieson, Watertown, Mass., at once, as entries will positively close August 10. The alleys on which the games will be played are 65 feet long. Nine inch balls will be used, either finger or solid according to roller's choice. Each competing team must be a bona fide representative of some organized florists' club, and shall consist of six members of such club. Three games will be played, the time for the same being one evening during the convention, not yet selected. The prize is a \$50 cup offered by the Gardeners' and Florists' Club of Boston, the cup to become the permanent property of the winning team.

In addition to the above trophy Messrs. F. W. Foster & Co., manufacturers of

steam and hot water heating apparatus, will offer through the Gardeners' and Florists' Club of Boston, three prizes for the best individual records made in the above contest, to be known as the "Foster Prizes," and consisting of gold and silver badges of special design, as follows: 1st prize, a gold badge, value \$35; 2nd prize, a silver badge, \$10; 3d prize, a silver badge, \$5, all to become the property of the winners.

W. J. S.

New York to Boston.

Members of the S. A. F. who will attend the convention from southern cities may be interested to learn that the palatial steamers of the Fall River Line, between New York and Boston have made a rate of one and one-third fares for the round trip on the certificate plan. The Philadelphia and New York delegates will go by this line, leaving New York at 5.30 p. m. August 18, and cordially invite all who can to join them. As the travel is very heavy at that season of the year only a limited number of state-rooms can be reserved for our accommodation and first come first served will have to be the rule, hence those desirous of securing state-rooms should write at once. Applications should be addressed to the undersigned with whom the company has placed the whole matter of state-room accommodation for the party. The tickets are good for three days before and three days after the close of the convention. Cost of state-rooms is in addition to price of ticket, and are \$1 and \$2 each according to location. Each room accommodates two persons, and a saving can be effected by two arranging to occupy one room.

Summit, N. J.

JOHN N. MAY.

Philadelphia to Boston.

The Florists' Club of this city at the last meeting decided to take the trip to Boston by way of the Fall River Route, and a right good time the members expect to have on that most popular of all routes to Boston. Much enthusiasm is evinced by all the "old timers," and many who have never before been to a convention have been enthused also, and a very strong delegation may be expected from this section of the country. For myself, I can speak, that a royal welcome awaits every member of the craft at the Hub. I have been there, consequently I know whereof I speak. Any member who hesitates to take the trip to the home of horticulture in this country will miss one of the greatest opportunities of his life to visit examples of what may, with justice be termed some of the most advanced types of horticulture in this country, both as to men and what has been accomplished by man in that line.

Any florist wishing to go with the Florists' Club of Philadelphia can not do better than correspond with John Westcott, 1514 Chestnut street, or C. D. Ball, Holmesburg, Philadelphia, either of whom will give them all the desired information about fares, time of starting, etc.

L.

Chicago to Boston.

The Chicago Florist Club has arranged for special cars from Chicago to Boston via the Niagara Falls Short Line, leaving



VIEW IN THE PUBLIC GARDEN, BOSTON.

Chicago at 9 p. m. August 17 and arriving at Boston August 19 at 9:55 a. m. The rate of one and one-third fares for the round trip amounts to \$25.35 by this route. Owing to the very advantageous arrangements made for special sleeping cars, the Chicago Florist Club has decided to bear this sleeping car expense on the trip down, and cordially invites all western florists who can make it convenient to travel via of Chicago to make use of these cars, free of expense to them. Club members are entitled to the same privilege. Send applications to G. L. Grant, secretary, 54 La Salle street, Chicago.

Convention Points.

ON TO BOSTON.

THE FULL programme of the Boston meeting was published in last issue.

BE SURE to get a certificate from the agent when you buy your ticket to Boston.

EXCURSION and banquet at Nantasket Beach with the Boston boys on Friday, the 22nd.

THE committee on nomenclature meets at the Tremont House Monday evening, August 18.

LOOK FOR our map of Boston which will appear in the Convention Supplement published with next issue.

MR. JOHN THORPE has been suffering from neuralgia recently, but hopes to be in good trim during convention week.

SEE LIST of hotels at which arrangements have been made for delegates in another column. Order your rooms now.

THE TRADE exhibit will be held in the hall below that in which the convention will assemble. Applications for space should be made to N. F. McCarthy, 1 Music Hall Place, Boston, Mass.

SEND in your annual dues (\$3) now to

Secretary Stewart, who will mail receipt and badge for 1890. This will save you some trouble on the first day and relieve the secretary from the usual rush at that time.

THOSE DESIRING to show plants and flowers at the annual exhibition of the Mass. Hort. Society which will be held at Music Hall, opening at same date as the convention, should make application to J. H. Woodford, Horticultural Hall, Boston, Mass.

THE CHANGING of the date of holding the annual exhibition of the Mass. Hort. Society so that it will occur the same week as the convention is a decided compliment to the national society, and the opportunity to visit such an exhibition will prove one of the most attractive features of the Boston convention.

OUR ANNUAL convention supplement which will be published with our issue of August 15 will contain a sketch map of the city of Boston on which will be prominently indented the Convention Hall, hotels at which rates have been secured, and many other items of immediate interest to the visiting members. Advertisements for the supplement will be received at usual rates.

WHAT A COMBINATION of attractions! The convention, the annual exhibition of the Mass. Hort. Society, the trade exhibit, the convention of the American Association of Cemetery Superintendents, the excursion to Nantasket Beach, the banquet of sea food, the day at Mr. H. H. Himmewell's magnificent country place, the many other horticultural attractions of the Hub, the buildings and other objects of great historical interest, the curious crooked streets of the old part of Boston, the bowling tournament, and with the Boston boys to meet us at the depot with a hearty handshake. Well, who could stay away?

Boston Hotels.

Following is a list of Boston hotels at which arrangements have been made for delegates to the coming convention of the Society of American Florists. It is arranged according to distance from the convention hall, beginning with the nearest:

NORTHWARD FROM HORTICULTURAL HALL.

Name and location.	Distance from Hall.	Rate per day.
Tremont House, Headquarters.	opposite	*\$3.00-5.00
Parker House,		
School St.	1 sqr.	† 1.00-3.00
St. Nicholas Hotel,		
Province St.	½ "	† .75-1.00
Boston Tavern (gents only),	1 "	† 1.00 2.00
Washington St.	1 "	† 1.00 2.00
Sherman House,		
Court Square	1½ "	† .75-2.00
Young's Hotel,		
Washington St. & Court Sqr.	2 "	† 1.00-3.00
Crawford House,		
Scollay Square	3 "	† 1.00-2.00
Quincy House,		
Brattle St.	3 "	* 2.50-3.00
American House,		
Hanover St.	4 "	* 2.50
Revere House,		
Bowdoin Square	½ mile	† .75-1.50

SOUTHWARD FROM HORT. HALL.

Adams House,		
Washington St.	4 sqrs.*	3.00
Hotel Reynolds,		
Washington St.	4 "	* 3.00
Vieth's Hotel,		
Tremont St.	5 "	† 1.00-2.00
United States Hotel,	½ mile	† 1.00
Beach St.	{ "	* 2.50-3.00
Hotel Brunswick,		
Boylston St.	1½ "	* 3.50-5.00
Hotel Vendome,		
Commonwealth Ave.	1¼ "	* 3.50-5.00
* American plan. † European plan.		

Rooms may be engaged now on application to any member of the committee on hotel accommodation. The committee is as follows: Wm. J. Stewart, 67 Bromfield street, Boston; M. H. Norton, Berkeley street, Boston; P. Welch, 165 Tremont street, Boston; J. Frank Curtis, Newtonville, Mass.; J. J. Cunningham, Readville, Mass.

Philadelphia.

Where is the scribe that used to do up Philadelphia in such fine style? has he retired to his L(a)z(y) cottage to be heard from no more? We hope not, for his pen at least is mightier than his sword and his genial smile can always be seen between the lines.

The past season must have been a prosperous one hereabouts, if we are to judge by the new houses that are going up. Messrs. Geo. Anderson, Craig, Heacock and Burton are making large additions, while many more are adding one or two or lengthening out short ones and otherwise increasing their plant.

All this is going on now, but some time during the coming winter we expect to hear of a meeting of growers who will discuss "the best way to market cut flowers," "what shall we do with the surplus," "the commission man a failure," etc., etc. And the store men will enter their protest against the street fakir and general gloom will abound. Then along will come the cold snap and the fakir and the gloom will disappear and the growers will smile and pat the commission man on the back and next summer we will have more new houses. The idea must prevail in some men's minds that the man who will get the best place up above will be the man who has built the most houses.

The recent sales of plants from this city at Young's auction rooms in New York City were very satisfactory to all concerned; the stock offered was the best seen there this season and the prices obtained proved that well grown stuff will command a ready sale and a good price. Messrs. Craig and Harris are to be congratulated.

The stock of palms, rubbers, pandanus and ferns in this neighborhood is larger and better grown and in more variety than we have ever seen before. The houses of C. D. Ball and H. A. Dreer are packed to the doors with beautiful plants in all stages of growth from seedlings to specimens, while Messrs. Harris, Craig, Lonsdale and Burton have large stocks of well grown plants. Some of the specimen *Areca lutescens* of Mr. Burton are the finest ever offered to the trade from a commercial place.

The base ball fever has broken out in our midst and many sad cases are reported. Just think of it, four organized base ball clubs of all florists or managed by florists, all uniformed and with dates for every Saturday afternoon until the first of October. There are the Craigs, Florists, Grahams and Woltemates. The Craigs are from Craig & Bros.' nursery, the Florists are from the cut flower stores in town, the Graham nine is from Hugh Graham's Son & Co., and the Woltemates are florists and others of Germantown.

From all appearances the Philadelphia contingent to the convention at Boston will be very large. A great many of the country brethren as well as all the principal men of the trade about town are down to go, and every day some new name is added to the list.

A little niche for that \$50 cup has been fitted up and no doubt when our club house is finished it will occupy a conspicuous place and always remind us of that trip to Boston. A.

Boston Notes.

Mr. and Mrs. Jackson Dawson have just returned from a short visit to Portland, where they were the guests of Mr. J. A. Dirwanger.



BUNKER HILL MONUMENT, BOSTON.

Mr. Geo. A. Heinl, of Toledo, has been spending a few days at the Hub. Eastern air seems to agree with him.

Mr. W. C. Strong who was dangerously ill while away in Europe returned recently. He is gradually improving, but still shows plainly the effects of his sickness.

Mr. P. Norton and Mr. J. H. Woodford, chairmen of the committee of arrangements and the flower committee respectively of the Horticultural Society are as busy as bees booking entries for the great Music Hall exhibition. They report encouragement and enthusiasm on all sides.

Mr. C. M. Atkinson, the genial gardener in charge at the estate of John L. Gardner, Esq., is not generally very mischievous, neither is Mr. Wm. Robinson, in charge of Mr. F. L. Ames' place at North Easton, easily fooled, but Mr. Atkinson scored a rich one on Mr. Robinson recently, which was thoroughly enjoyed all round, and which either of them will no doubt be glad to relate to enquiring friends.

D. Zirngiebel has been making great efforts to have something good to show at convention time, and has now in his greenhouses at Needham grand collections of New French and "Marguerite" carnations and French cannas which will be just in at the right time.

At a recent Saturday exhibition in Horticultural Hall Mr. J. W. Manning, of Reading, showed 127 species, and 150 varieties and species of hardy perennials. The hollyhock show on Saturday, July 19, was very fine. Mr. J. S. Fay was awarded a silver medal for his exhibit.

On the afternoon of the first day of the convention the visiting ladies will be given a carriage drive by the Gardeners' and Florists' Club, taking in Brookline, Cambridge and other beautiful suburbs of Boston, and stopping at the pottery of A. H. Hews & Co., who invite them and as many of the gentlemen as choose to meet them there to inspect the working of the establishment, and will provide a lunch for all who come.

W. J. S.



COMMONWEALTH AVENUE. BOSTON.

Chicago.

Mr. John Lane has returned from his California trip.

On July 12 judgment for \$1,000 was rendered against the Neal Floral Co.

Mr. Peter Blaumeiser, of Niles Center, died recently. His son is carrying on the business.

Messrs. W. L. Morris and Chas. N. Page, of Des Moines, Iowa, paid Chicago a short visit recently.

Three new members were elected at the last meeting of the Florist Club. It is a curious fact that for five meetings three new members were elected at each meeting. Three seems to be a charmed number.

Every one wants to go to Boston and while it is as yet impossible to say how many can be depended upon to respond to roll call on the 17th, that there will be a goodly representation is beyond question.

E. Weinboer & Co. are making extensive additions to their glass at Park Ridge. The new buildings include two rose houses, 125x18 and 125x12 respectively, a propagating house 125x7 and a house 90x14 for general purposes. Hot water is the system used for heating.

At Lake Forest, Hild Bros. have added two new rose houses, one 125x21 and the other 56x21. Fred Anderman is off on a two months trip to Colorado to recruit his health. Wm. A. Kennedy, late with T. J. Slaughter, Madison, N. J., is now in charge of the McCormick rose houses.

The interest in the work of the Florist Club continues unabated. New members are continually coming in and the treasury is in a healthy condition. The final details for the fall exhibition are now being arranged and there is every reason to believe that it will show the usual advance over preceding ones.

Mr. Joseph Curran has left the position

he held for so many years with Charles Reissig, and rumor has it that he will soon open a store with his own name over the door. There is no more popular young man in the trade in this city than "Joe" Curran, and that he will have the very best wishes of every one for success in his new venture goes without saying.

From the amount of new glass being put up around Niles Center and Morton Grove there should be no shortage in the supply of cut flowers in the Chicago market the coming season. George Harter is adding 12,500 feet of new glass, Husecher, Mailander & Miller 25,000 feet, Pochlman Bros. 10,000 feet, Schiller & Mailander 16,000 feet, Peter Blaumeiser & Son 5,000 feet, Jacob Meyer 2,000 feet, and F. Stielow 4,000 feet. This is a total of about 75,000 feet of new glass at that point.

A project is on foot to organize a horticultural society for Chicago and vicinity, and the consideration of ways and means of accomplishing this object was the special order for the last meeting of the Florist Club. After considerable discussion a committee of five was appointed to secure the co-operation of as many amateurs as possible and then issue a call for a meeting for organization. A horticultural society existed in this county many years ago, but it never recovered from the disorganization which followed the Chicago fire of 1871. That Chicago and vicinity is in need of such an organization and that present conditions are favorable to the establishment and maintenance of a society which shall be a benefit to the city and an inspiration to all lovers of horticulture in this locality there can be no doubt.

Don't FORGET that convention supplement advs. must reach us by August 7 in order to secure insertion.

Long Island Notes.

BY WM. FALCONER.

HYBRID DELPHINIUMS raised from seed sown last January are now in bloom, a month later than the permanent border plants.

LUPINS.—I raised a lot of annual lupins and a German coming along exclaimed, "Why, that's the thing we raise so much of in Germany to plow under for green manure as you do with clover here."

INCARVILLEA OLGE is a hardy perennial from Turkestan. It has rose-purple campanulate flowers, freely borne at the ends of the shoots, and it is withal a thrifty, long-lived perennial, keeping green all summer and more or less in bloom all the time. I have grown it since it was introduced some ten years ago and fail to find the great decorative merit some claim for it.

JANUARY-STUCK CARNATIONS planted out late in April and not since cut back are in good bloom, and none are more copious than is Portia.

PLATYCODON GRANDIFLORUM NANUM (Mariesii) raised from seed sown March last, is now nicely in bloom, although only about 6 inches high.

CHRYSANTHEMUM MULTICAULE has been in good bloom for a couple of months.

HELIANTHUS RIGIDUS is now in good bloom. It is a hardy, perennial sunflower about 4 feet high, branched, very hispid, and with bright golden yellow dark centered sunflower blossoms 4 inches across. It spreads at the root and is easily propagated and well worth growing.

HIBISCUS CHRYSANTHUS comes from Natal and has large wide campanulate yellow flowers with a deep brown-purple throat. It is easily raised from cuttings and when planted out it blooms freely, but I don't think the flowers are much better than those of Okra or Hibiscus Africanus.

EAST LOTHIAN STOCKS.—Now that the large flowering German 10-weeks stocks are nearly past the East Lothian varieties are coming in in fine condition. They are good stocks and well worth growing for succession.

THE MOSQUITO PLANT (*Vincetoxicum acuminatum*) is still in good bloom and has been so for some months.

THE DOUBLE FLOWERING scarlet Lychnis Chalcedonica is one of the finest and most lasting of hardy plants. Old clumps divided last spring have given us many young plants now in full bloom.

THE DOUBLE FLOWERING PYRETHRUMS are becoming very popular. One prominent firm has stopped hooking orders for them for a season.

ASCLEPIAS TUBEROSA is now in gay condition. Although a wild plant here it is one of the handsomest of cultivated perennials. The way to get up a large stock of it is from seed. In saving seed be very particular to save it from the brightest colored flowers.

WHEN Gaillardia picta var. Lorenziana first came out there was a very wide difference in point of doubleness between the flowers raised from ordinary seed and the illustrations, but now on account of continued selection we get many flowers just as full double as any represented in the original pictures.

THE DOUBLE FLOWERING Corn Flower (*Centaurea cyanus*) is said to be double in the same way as are the flowers of *Gaillardia Lorenziana*. But really mine are not. Let us wait and hope, however, perhaps years of careful selection may do for the corn flower what they have done for the *gaillardia*.

TORENIA WHITE WINGS is having a big boom in England this year. A few years ago it was sent out here as a novelty. It is a pretty, continuous blooming little annual.

GLOBE FLOWERS (Trollius).—Last spring I broke up our old plants into as many well rooted pieces as practicable and planted them out closely in rows. On account of the moist summer they have grown very well, and the *T. Asiaticus* and *T. Caucasicus* bloomed well a second time, only the second crop flowers were much smaller than the earlier ones.

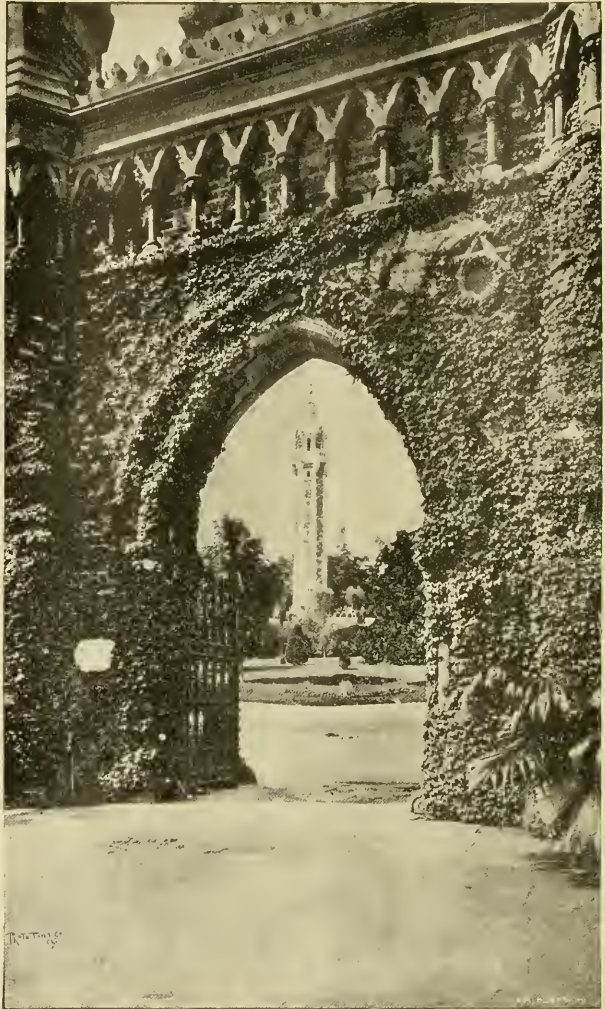
DOLICHOS JAPONICUS is a bold, hardy herbaceous perennial vine with large leaves, and it will outgrow any other vine I know of. Our vines, starting last May have already run forty feet.

PLUMBAGO CAPENSIS planted out in summer blooms freely from midsummer on and gives us a pleasant shade of blue not easily found among other garden plants, and by pegging them down we can keep them as flat to the ground as a bed of geraniums.

PASSION FLOWER vines when planted out in a warm sheltered place in good, moist land not only grow vigorously but bloom profusely during the late summer months.

CLEMATIS FLAMMULA FRAGRANS is the most densely flowered vine we now have in bloom; the plants are like pillars of snow and delightfully fragrant. It is a little earlier than the typical form, but, really, I don't see any other difference between them and perhaps even this is due only to some local cause.

RAISING CLEMATISSES FROM SEED.—Gather the seed as soon as they are ripe, keep them for a few days to harden and then sow them in flat boxes filled with light soil. Put these boxes in a cold frame shaded over by brush or lath or out of



GATEWAY TO FOREST HILLS CEMETERY BOSTON.

doors on the ground in a somewhat shady place, and let them alone except to keep them clean. Next spring you may reasonably expect a nice lot of young seedlings, but not before then.

DMORPHOTHECA PLUVIALIS or Cape Marigold was very pretty in June and the early part of July, but it is past now and should be cleared away and replaced by something else. It is of no use as cut flowers. The double flowering variety is no improvement over the single one.

NICOTIANA AFFINIS is lovely at night and so fragrant; in the day time, however, its blossoms are shut and the fragrance gone. What about the *N. decurrens* that has been so widely sold this year? Is it the same as *N. affinis*? I find no difference between them, that is, judging from what I have got for *decurrens*.

GALTONIA CANDICANS or Hyacinthus candicans as we most generally call it, is now abundantly in bloom, and where it is grown in quantity there will be a continuous supply of blossoms from July till October. It is as easily raised from seed as is a crop of onions, the young bulbs are hardy and most of them will give blooms the second year. The bulbs "last forever," our biggest bulbs are now seven years old, and year after year they seem to grow larger and throw up taller flower scapes. But the old bulbs are not nearly so hardy as are young ones.

HYDRANGEA VESTITA is the same as *H. pubescens*, and I believe the same as *H. aspera*, and it is offered retail by French and German as well as home firms. This being so it would seem ridiculous for any American firm to offer it subject to Fay's



PAVILION ON THE ESTATE OF MR. H. H. HUNNEWELL, WELLESLEY MASS.

Prolific currant or Niagara grape-like stipulations.

MIGNONETTE MARVEL is a new variety from France. It was awarded two first grand prizes at the grand floral exhibition in June last, in connection with the Paris Exhibition. The flowers are described as "very double, pure white, of immense size and striking purity, and of exceptional merit for using in a cut state, especially for white bouquets. Owing to the flowers being so very double the seed is produced very sparingly." We have it in good condition. It is decidedly distinct from any other mignonette of my acquaintance, robust but compact, and its flowers have a green and white appearance and instead of being produced on long raceme-like spikes they are borne in dense panicles. Not very fragrant. I scarcely believe it will become popular.

SOME VARIEGATED-LEAVED SHRUBS.—The foliage of the yellow leaved elder has scalded a little, that of the white variegated one is perfect, but of course the white markings are limited in extent. Both kinds of variegated leaved altheas are as good as can be, and so too is the variegated leaved privet, but the golden leaved philadelphus and the variegated box maple are a good deal sun scalded. The variegated weigela is good, so too are the varieties of *Elaeagnus pungens* and the variegated Cornelian cherry. The white variegated *Cornus alba* keeps its coloring well, but as a handsomely variegated leaved shrub all subjects pale before *Cornus alba* var. *Spathii*. It is hardly as a rock and has a wealth of fine leaves richly and broadly variegated with golden yellow. It seldom "burns" in summer, and it is the best variegated shrub grown.

ARISTOLOCHIAS IN NEW ORLEANS.—Un-

der date of July 13, a gentleman in New Orleans writes to me: "I have just now three species of *aristolochia* in full bloom, they are *A. elegans*, *A. gigas* and *A. cymbifera*. Of *A. elegans* I have two strong vines and at present they are loaded with flowers and green seed pods. It is a very thankful plant, and seeds very abundantly, and a great many self-sown seedlings are coming up around the old plants. I have never, however, been able to get any seed from *A. gigas*; I presume it requires some special insect which we have not got to fertilize its flowers. The *A. cymbifera* is new with me, blooming for the first time this year. It is a very showy species as well as an oddity."

CALCEOLARIAS AND LEAF MOLD.—A gentleman of Providence, R. I., writes me that he has had excellent success in growing calceolarias. He used to include some leaf soil in his compost for them, but in correspondence with Mr. James the English specialist, Mr. James advised him never to use leaf mold in the soil for calceolarias. I always have used leaf mold mixed in the soil for them and have never known it to hurt them, but of all men living I know of no one better qualified to give an opinion on this point than is Mr. James, so in deference to his great experience I will omit the leaf earth from my calceolaria soil this season, and note the result.

Wild Flowers from Alabama.

From the mountains in northern Alabama a horticultural friend sends me a delightful little box of nature's posies—plants in bloom and plants long out of bloom. It contained *Viola pedata*, *Cypripedium pubescens*, *Spigelia Marilandica*, *Oxalis violacea*, *Gonolobus hirsutus*, *Smilax herbacea*, *Amianthium musce-*

toxicum, *Tephrosia Virginica* and some *asclepiads*. Also some seedlings of that extremely rare shrub, or small tree, *Rhus cotinoides*. And regarding them he writes me:

"Our bird's foot violets are simply gorgeous here, they actually rival the fine pansies. The *cypripediums* grow plentifully in the woods and in about the same sort of places as I have found them in New Jersey and Massachusetts. The local name for the *spigelia* is Indian Star Pink, and the *amianthum* is called Wild White Plantain. The purple *oxalis* abounds here as it does in northern woods. The *gonolobus* has a clematis-like look, and vigorous plants are quite pretty; it does well in cultivation. The *smilax* is a very interesting plant. I have found some magnificent specimens of it with sprays of its curious seed vessels a foot long. The *tephrosia* is common in the woods, and the white, and orange (*tuberosa*) *asclepiads* keep in bloom most all summer." All of the above plants are, with a little extra care, hardy on Long Island.

About the *rhus* he writes: "The *Rhus cotinoides* is indigenous to this immediate vicinity and is here called Shittim Wood. The plants I have sent are one year old seedlings; it has never before been propagated. I should judge that it would make quite a desirable lawn tree, probably hardy with you, as we have zero weather here for a short time almost every winter, and our climate is more trying than yours. Its blooming time here is usually the latter part of April. Its flowers somewhat resemble those of the old smoke tree (*Rhus Cotinus*), only it is of more desirable form."

We already have a handsome specimen of this rare tree, 9 or 10 feet high, and five years planted, in flourishing condi-

tion in our grounds, and, so far as I know it is the largest plant in cultivation. Now, however, thousands of seedlings of it have been raised in Alabama, and, no doubt, it soon will become plentiful enough.

W. F.



BY JOHN N. MAY.

[Read before the Florists' Club of Philadelphia July 7, 1890.]

The forcing of this class of roses has undergone considerable change in the last few years, both in the mode of treatment and varieties used. I might mention here that the first hybrid roses ever bloomed at Christmas in the vicinity of New York, of which there is any record, was the result of an accident. The circumstance may be interesting to some of you, inasmuch as it completely upset the then prevailing idea among the best informed men on the subject, namely, that it was absolutely necessary to have all this class of roses frozen before they could be induced to bloom. The accident above mentioned was a very simple one. I had growing in pots some young plants of General Jacquemont intending to bloom them during February the coming season, and at the same time I had four plants only of Gloire de Rosamine, an old variety of very rich color which some years previously I had found to bloom very freely at a very early date, namely, early in January. These four plants I had given instructions should be left standing in the open air till middle of October and for the last month they were kept quite dry, but by some means these plants had during the summer been mixed up with the Jacqs and four plants of the latter substituted in their place. The wood being very much alike I did not discover the difference at the time, but on or about the 15th of October I pruned the four plants back to good sound eyes, placed them in the greenhouse with the ten roses and the result was that on the following Christmas eve I sent four very nice blooms of Jacquemont to New York, and the florist who took the roses I was then growing sent word back by our messenger that if I could send him one hundred blooms like those the next morning, Christmas day, he would send me a check for \$100. Of course I did not send the 100 roses, but I sent eight and got \$8 for them, and what was worth a great deal more I gained considerable knowledge, because it happened that the season in question had been an exceptionally mild and dry fall and up to the time these plants were put into the greenhouse we had only two or three nights on which there was a little white frost, heliotrops were still green near the greenhouse door when I put the plants inside. But although this was a pretty clear case as a lawyer would put it, I was still somewhat of a doubting Thomas, so to clear the matter up (and perhaps a little conceit was mixed up in it, for I thought, and well I remember it, "these old doctors don't know it all yet") I grew 100 nice young plants the next summer, treated

them as nearly as possible the same, and the result was we cut for the next Christmas and New Years eight hundred and thirty odd fairly good Jacq roses. But from the fact that they were grown in the same house and with the same treatment as the teas they were not as good as have since been produced under more favorable conditions. But I proved my theory, namely, that it was not necessary to have the plants frozen before starting them to grow. Since that date many thousands of fine blooms have been produced from plants that had not been subjected to freezing and I presume those who have tried early forcing of hybrids will agree with me that it is not absolutely necessary.

As that point may be considered settled I will pass on to the next, namely, summer and fall treatment, for herein lies the kernel of the nut we all like to crack. The past three seasons have been very unfavorable for this business on account of so much rainfall during the months of August, September and October. Formerly for very early forcing, growing in pots was considered the best method to follow, and for many cases it is undoubtedly the best yet, particularly for those who can not afford to devote a whole house at a time to this class of flowers, or maybe only requiring a few blooms at a time, therefore finding it desirable to prolong the crop as much as possible; for all such the pot system is undoubtedly the one to follow.

Select good strong plants in early spring, grow them on, shifting as required into larger pots till they are finally potted in 8, 9 or 10-inch pots, according to the strength of the plants. In potting the plants for the last time extra care should be taken to have plenty of good clean crocking placed over the bottom of the pot, not less than two inches, over which place a piece of thin sod, grass side down; this keeps it quite clean of soil (the pot should have a drainage hole of not less than two inches diameter). Then pot the plants as firmly as possible leaving the surface of the soil not less than $\frac{3}{4}$ of an inch below the rim to allow for an abundance of water during dry weather. This should be done not later than June 15, and if the plants are kept in active growth they will start new roots in five to ten days. At the end of that time they should be placed in the open air, and if hot weather sets in plunge the pots nearly to the rim in fine coal ashes, allowing each plant room to grow, keep them clean, water when necessary and syringe or rather hose them overhead frequently in dry weather. If properly treated they will have made good strong canes by the middle of August and have their pots full of roots.

If the plants are wanted to flower at Christmas commence withholding water, gradually at first; if the weather should be hot and dry water but once where they had been watered twice during active growth. After a week or ten days one watering will suffice where formerly three or four had been given, and by the end of 25 to 30 days they will stand a week with only a slight moistening overhead occasionally, but never allow them to shrivel. Should heavy rains prevail they should be lifted out of the plunging material, and when the tops indicate that all active growth has ceased they should be laid on their sides so that the soil does not get soaked with water, otherwise it will be so much labor lost as they would immediately push their bottom eyes into growth and the chances for getting flowers early are very slim; but by using

a little judgment in the matter this need never occur unless the weather is very unfavorable, such as the last two seasons have been. Then extra care and watching is necessary, but presuming that we get our usual fine September weather there is no difficulty in ripening the plants off finely, and if handled right they will be ready to prune by the end of September or first week in October. At this time the wood should be quite hard and solid, with some of the bottom leaves dropped off, but the bulk of the leaves still on the shoots, of a pale green color but still fresh.

In this condition the plants are fit to prune. They should be cut back to the lowest good sound eyes on each shoot, the small weak ones if any should be cut clean away. Clean the surface of the soil off very lightly, give a slight dressing of fresh soil to fill up the cracks around the edge of the pot, set on a bed of coal ashes and give two or three good soakings of water, enough to moisten the ball thoroughly throughout as many days. Syringe frequently till the eyes begin to swell. Should it threaten to rain heavily some means should be at hand to protect the plants, particularly after their eyes begin to swell, and as soon as possible after this they should be placed in a greenhouse. Keep the temperature for the first two weeks at 45° to 48° at night, with plenty of air during the day, gradually increasing it till the buds begin to show. At this stage the temperature should be from 52° to 54° at night. As soon as well set with buds begin watering liberally with liquid manure and continue it till the buds are cut, at least every other watering. It improves the flowers very much, both in size and color. From this stage till blooming is over an average of 56° at night should be maintained, with plenty of air during the day on all favorable occasions. At this season of the year it usually takes from 10 to 12 weeks to get the crop in full bearing. If required earlier, say end of November and first of December, it will take less time by ten days, as they have to be pruned in warm weather and consequently start much quicker in growth; and if required three or four weeks later than first mentioned they should have a little more time, usually twelve to thirteen weeks.

Another system followed is to put several plants in shallow boxes with from four to six inches of soil. These can be treated similar to the pot plants; the disadvantage of these is they are not so handy to move around in stormy weather, but where there is convenience for easily protecting them in case of adverse weather, they have many advantages over the pots.

Another system which is perhaps the simplest and best where a whole house is wanted to bloom at one time, and, where the crop can be disposed of readily, is to plant them on benches in early spring. Grow them on liberally so as to get good strong canes by the first of July, then take the sash off the houses and gradually withhold water till the wood becomes good and solid and presents somewhat the same appearance as described above for the pot plants. Then as soon as indications of rainy weather are noted place a row of 2x4 timbers along the bottom of the rafters, lay the sash on these and fasten so the wind will not blow them off. By this means all the heavy rains can be kept off the plants and at the same time it allows a free circulation of air through the house at all times. This keeps the wood in a dormant condition till time to prune it; when that



MINOT'S LEDGE LIGHTHOUSE, BOSTON.

is done the sash can be properly fixed on the roof, the benches have a good mulching of manure thoroughly soaked with water and started into growth in a similar way to that described for the pot plants. In growing them under this system great care must be used in the drying off not to allow the wood to shrivel, and at the same time they require to be thoroughly well ripened or the result often will be a large percentage of blind wood, or in other words the buds fail to set. Such a result would cause a considerable loss to the owner.

Varieties best suitable for this purpose. Of these there are several which have been grown for several years and proven to be well suited for this purpose, namely very early forcing. *Anna Alexieff* is the easiest and surest bloomer of all, next comes *Magna Charta*. General *Jacquemint*, *Anna de Diesbach*, Mrs. John Lining and *Mme. Gabriel Luizet*. Any or all of these can be grown either separately or together in the same house, but the grower will do well to ascertain so far as possible which varieties are the most in demand in his particular locality, and should confine himself principally to such. As an illustration, formerly *Anna Alexieff* and *Gen. Jacqueminot* were the most in demand in the New York market, now they are both of secondary consideration, *Magna Charta* being in best demand, while in Boston I understand the latter variety is not at all a favorite with the retail florist. There are several other

varieties that can be forced early, and I doubt not there are plenty more when they are thoroughly tested, but the above are the recognized standard sorts at the present time. These furnish a good assortment in size, shape and color, and with the exception of the variety first named are all very sweet roses.

In conclusion, past experience has taught me that medium or poor roses of this class are not wanted, but really fine blooms will always command a ready sale and be a credit to the grower and a pleasure to the consumer. In this as in all matters appertaining to our business let our motto be *Excelsior*.

Bedding Geraniums.

A first class bedding geranium must have a good habit, grow well, propagate rapidly, bear freely blooms of good size and distinct bright color which will stand pelted rain and blazing sun, and a combination of all these good qualities is rare enough in spite of the introduction of innumerable new varieties every year. Again geraniums which do well in one locality are a comparative failure in another, hence any iron-clad list of the best geraniums can not be accepted for all points even in the same latitude. The nearest we can come to it is to give the experience of those who have made extensive trials in certain localities and this is valuable only in those localities and others where similar conditions prevail.

Superintendent Fred Kanst of the South Park system, Chicago, plants geraniums largely for summer decoration of the parks and boulevards under his supervision, and though he is continually trying new varieties it is very rarely that he finds one to add to his list of standard sorts, as is shown by the annexed list compiled in response to our request for the names of those which he had found best for general purposes in his experience at South Park.

SINGLE.

1. *Clement Boutard*, white, large pip and truss.
2. *General Grant*, scarlet, large truss.
3. *Lucins*, orange rose.
4. *Ralph*, dark amaranth purple, profuse bloomer.
5. *Rev. A. Atkinson*, dazzling scarlet.

DOUBLE.

1. *Sapeur Pompier*. No one who wishes to have a brilliant display of flowers in their garden should be without this old sort, for it stands the hottest sun and holds its foliage well.
2. *Pres. Leon Simon*, red, constant bloomer.
3. *Dr. Jacoby*, salmon, constant bloomer.
4. *Ernest Lanth*, dark red, constant bloomer.
5. *S. A. Nutt*, dark red, tinted scarlet maroon shaded.
6. *Waddington*, dark pink, large truss.
7. *Naomi*, flesh pink.
8. *Candidissima flore-plena*.
9. *Golden Dawn*, bright orange red.
10. *Clipper*, scarlet, semi-double.

Mr. Kanst adds: The above are the varieties that I depend on for the principal display, but have about thirty other varieties that I make use of, and some of them are pretty fair bedders.

What's Its Name.

A gentleman in Illinois sends me a leaf and flower of a plant for name, and adds this tid-bit: "I have asked five or six florists and got five or six names, and have asked three botanists and got three names, and no two alike!" Well, this is humiliating enough, but please be merciful. You cannot expect that we poor fellows who earn our bread by the horn of our hands and the sweat of our brow, are systematic botanists and conversant with the names of plants not directly in our line of work, and no more can you expect botanists to be florists and acquainted with the names of garden varieties of horticultural plants. But the S. A. F. should not be in this dilemma. And I sincerely hope that the society will, at its next meeting, take some steps towards helping its members in this direction. I firmly believe in the advisability of making arrangements with some reputable, systematic botanist, who would undertake, for a consideration, to name all plants, apart from horticultural varieties, sent to him through the authorized channels of the society. W. F.

Horticulture at the World's Fair.

The executive board of the Illinois State Horticultural Society met recently at Sailor Springs and issued a call inviting "The various national, state and other prominent horticultural and floral societies and nurserymen's and forestry associations to meet in convention at the Sherman House in the city of Chicago on Wednesday, August 27, 1890, at 10 o'clock a. m. to consider the best methods of properly representing the horticultural interests of the whole country at the

World's Columbian Exposition in 1893, and to formulate and discuss plans for making the horticultural department of that exposition so complete that it will be the pride of our people and the admiration of the assembled nations of the world. This convention will be composed of two delegates from each of the societies before mentioned in the United States and Canada."



Seasonable Notes.

Lateralis on plants for exhibition cut flowers should be kept cleaned off from this time forward. Buds should be selected on the very late kinds where they are required to be in flower by the 5th to 10th of November. By the middle of the month buds should be selected of many of the mid-season varieties, and by the 1st of September to the 15th all early flowering kinds should receive the same attention. Do not depend upon the actual number of buds intended to mature, for instance, if a plant is to carry four flowers or eight flowers save eight to fourteen buds, and then as the buds develop secure the most perfect and thin down to the right number.

Stopping of specimen plants should be completed by the 5th of the month, including even the earliest kinds. Training must be followed up closely, especially where there is unevenness or raggedness. Look out now for a little beetle which does serious damage to young growth, often causing blind shoots. Tobacco water, tobacco dust and slug shot are all good remedies.

For cut flowers for commercial purposes plants on benches must have strict attention as to watering. Syringe night and morning, and under no circumstances allow the plants to suffer. If planting has to be done with plants from 2½-inch pots, eight inches apart will be correct.

Plants for market work should be shifted into their flowering pots by the end of the month. JOHN THORPE.

and and

Conducted by CHARLES F. BAKER, Agricultural College, P. O., Ithaca, N. Y. send specimens of unidentified insects and diseased plants to him at above address.

A Parasite on the Rose Louse Braconid.

In discussing the rose plant louse (AM. FLORIST, Vol. V, No. 117), its parasite—a Braconid—was spoken of as probably being undescribed. Later it was learned to have been described by Provancher under the name of *Ephedrus incompletus*. Some further very interesting facts have been noted in regard to it. While studying them a large number of the parasitized lice were collected and placed in a breeding bottle. First a large number of the braconids appeared, and after a time some very minute chalcids (*Isocratus vulgaris*, Walk.) were found in the bottle. These chalcids are undoubtedly parasite on the braconid and consequently injurious; not that they do any direct injury

but that they destroy a beneficial insect. That the chalcids were secondary parasites is more plainly seen in the fact of their not appearing until some time after the braconids. The braconids would thus have time to mate, deposit their eggs and the eggs to hatch before the chalcids appeared. They would then be ready to harbor the minute larvae of the chalcids at just the right time. Prof. Howard says that this chalcid is common in Europe, but not so in America, and is parasitic on other braconids besides the one on the rose plant louse.

Mammoth Verbenas.

ED. AM. FLORIST:—Without wishing to controvert the statement of Mr. Alfred Henderson in regard to the strain of mammoth verbenas, I would say that I always understood his father to admit that his strain was raised from the mammoth pink verbenas the "Beauty of Oxford," which I named and sent to him in 1876. This verbenas was raised by John Garvin, of Oxford, Baltimore county, Md., and sent out by me. It was a seedling from a verbenas formerly grown largely around Washington under the name of Mrs. Douglass. W. F. MASSEY.

N. C. College of Agriculture.

SITUATIONS, WANTS, FOR SALE.

Advertisements under this head will be inserted at the rate of 10 cents a line (seven words) each insertion. Cash must accompany order. Plant ads. not admitted under this head.

SITUATION WANTED—By a practical gardener and florist, thoroughly understands the business in all branches. First-class references. Single. D. E. S. Winchendon, Mass.

SITUATION WANTED—As florist and gardener in commercial or private place. First-class recommendations from business men and city references. BOSTON, care American Florist.

SITUATION WANTED—By palm and fern grower. Experienced in European nurseries making a specialty of this stock. Good references. Address O. care American Florist, Chicago.

SITUATION WANTED—As propagator of roses and other florist stock. First-class reference as to ability, etc. Married. Address F. B. care American Florist, Chicago.

SITUATION WANTED—By reliable florist in commercial or private place; age 26; 16 years' experience; six years in present place. Best of references. FRANK BROWNE, Drawer 4, Barrie, Ont.

SITUATION WANTED—By a practical gardener and florist. Single; German. Long experience in all branches. Only a first-class private place wanted. Address G. K. Box 232, St. Joseph, Mo.

SITUATION WANTED—By a gardener 30 years of age; 16 years' experience; 6 years manager of extensive greenhouses in Mexico. Best references. Address W. E. Beck's Drug Store, Pittsburgh, S. S. P. 25th Ward.

SITUATION WANTED—By a young, practical gardener, in large florist business where everything is growing well, to widen his knowledge in certain branches. Address T. care American Florist, Chicago.

SITUATION WANTED—Gardener and florist with long practical experience in all branches of horticulture, wants to change his situation the 1st of Sept. Married, without family. Address FRED WEBER, Mottstown, N. J.

SITUATION WANTED—By a young competent German florist and landscape gardener, experienced in line of nursery, also capable of drawing plans. Best reference given. Address 11 E. 301 Manchester Road, St. Louis, Mo.

SITUATION WANTED—By Scotchman; married; age 29; 12 years' experience as head assistant in florist business. Strictly sober and reliable. Good references. Address G & F, care American Florist.

SITUATION WANTED—By a young man as florist in commercial place; is sober and industrious, and is competent to take entire charge of place. Good references and recommendations. Address N. H. GANO, 105 South 13th Street, Richmond, Va.

SITUATION WANTED—By a young, practical gardener; long experience in the different branches of gardening; good propagator and bedder. Private place preferred. Single, sober and steady. Good wages expected. References given. Address R. care American Florist, Chicago.

SITUATION WANTED—By a young florist, in the vicinity of New York or Philadelphia, 24 years experience in growing roses, cut flowers and general greenhouse plants. Sober and steady. First-class references. American, age 20 years CHAS. A. BYER, Waynesboro, Pa.

SITUATION WANTED—As gardener in first-class private establishment or superintendent of public parks or estates by a young Scotchman who had a first-class training in the old country. Genuine tradesman in all branches. Best of references. J. E. M., 270 West Grand Ave., Milwaukee, Wis.

WANTED—Second-hand steam upright boiler able to heat 1000 feet of pipes. J. A. ROZTIG, Oxford, Ohio.

WANTED—A good grower; married or single. Address, giving references, and salary desired. F. S. care American Florist, Chicago.

WANTED—To purchase or rent a greenhouse establishment in a town of not less than 15,000 inhabitants, either east or west. Address with full particulars, J. P. O. Box 204, New York City.

WANTED—Young florist of good taste; must understand decorating and designing; one that has had charge of a place before preferred. Best of references required. ALBERT FICHES, 430 East Division St., Chicago.

WANTED—A good, steady and strictly temperate man; married or single; must be well up in roses; night man for 7 months of the year, the remaining 5 as regular day hand. Situation open Sept. 1st. ALBERT M. HOLT, Lancaster, Pa.

WANTED—A competent florist as foreman in a commercial place; must be well up in roses; growing of flowering plants, forcing of bulbs, etc. Please send copies of recommendations to J. A. PETERSON, 41 W. 4th St., Cincinnati, O.

WANTED—Man to take general management of a nursery, florist and greenhouse; must be well up in trees, shrubs, hardy roses, grape, etc.; must understand each branch for commercial purposes; references required. FRANK S. HULL, Cleveland, O.

WANTED—A thorough, practical florist; married or single. Roses, carnations, bulbs and general assortment. Reliable references required. Must be strictly sober. When writing give references, and state wages expected. Address JOHN REED, Bridgeport, Conn.

TO GREENHOUSE CONTRACTORS—Wanted put up completed address three-quarter pitch, heated by steam. We lay all foundation for house, or we furnish steam. All to be first-class. Send estimate immediately to J. WILSON, Box 83, Marion, O.

FOR SALE—One Hitchings Boiler No. 10 and 20 ft. of 4-inch pipe. Address WM. A. BOCK, North Cambridge, Mass.

FOR SALE—Greenhouse with good stock, house and lot, in growing city of 15,000. For particulars address L. J. S. care American Florist.

FOR SALE—A good greenhouse and seed business in Central New York; house, barn and several acres of land. Address A. B. care Am. Florist.

FOR LEASE—One of most desirable floral establishments in the southwest, beautifully located near a large and flourishing city. Ten, twenty, or more acres of very rich land, very peculiar, address A. B. care American Florist, Chicago.

FOR SALE—A greenhouse complete, well stocked. Purchaser may have free use of acres of ground for a term of years, or may buy at any time. This is an opportunity for some reliable party to secure a good business. Address LITCHFIELD GREENHOUSE CO., Litchfield, Minn.

FOR SALE—A florist establishment of five greenhouses in first-class condition and every convenience, with stock and fixtures, in a live city of over 100,000 inhabitants. Owner is about to retire. Wish to retire from business. A splendid opportunity to step into an established, paying business. Address MALTA, care American Florist, Chicago.

FOR SALE.

Astoria Nurseries, Astoria, N. Y. Having purchased the larger part of the stock of Wm. C. Wilson, and wishing to reduce same preparatory to moving to new location, offer bargains in all varieties of plants. Heating apparatus and greenhouse fixtures also for sale.

A RARE CHANCE.

General florist's business MUST be sold quickly. Fine retail trade at home and abroad. Well located in city of 30,000 inhabitants. Everything in running order, and well stocked. A BARGAIN. Good reasons. Address

"OHIO," care American Florist.

FOR SALE CHEAP.

One No. 17 and two No. 16 Hitchings Boilers, also 3,000 feet of 4 inch pipe and fittings; all in good order. Address CHAS. FRUEH, East Saginaw, Mich.

Mention American Florist.

FOR SALE OR LEASE.

A great opportunity. A first class florist business consisting of about two acres more or less of very rich ground, then seven acres of orchard, and 100 ft. of glass, five are heated by steam and two by water, two wells and tanks, and a large cistern. New wind mill fixtures complete. For particulars send for pamphlet, and sample of flowers of place. A good reason for selling will be furnished on application. Address SHAPIRO & HORN, Nashville, Tenn.

vigorous plants, from 2½-inch pots, \$2.50 per 100; \$20.00 per 1000.
J. L. DILLON, BLOOMSBURG, PA.

THE AMERICAN FLORIST

Subscription \$1.00 a year. To Europe, \$1.50.

Advertisements, 10 Cents a Line, Agate;
Inch, \$1.40; Column, \$14.00.
Cash with Order.**No Special Position Guaranteed.**
Discounts, 3 months, 5 per cent; 6 months, 10 per cent; 12 months, 20 per cent.
No reduction made for large space.

The Advertising Department of the AMERICAN FLORIST is for Florists. Seedsmen, and dealers in wares pertaining to those lines ONLY. Please to remember it.

Orders for less than one-half inch space not accepted.

☛ Advertisements for August 15 issue must REACH US by noon, August 9. Address

THE AMERICAN FLORIST CO., Chicago.

A copy of the published proceedings of the fifteenth annual meeting of the American Association of Nurserymen, held at New York City last June, has been received from the secretary. It contains the many valuable essays read at the meeting, together with the discussions on same, all of money value to every one interested in the nursery trade. Membership in the association entitles to the report and the annual membership fee is but \$2. Those in the nursery trade who are not yet members should not fail to send the small membership fee to Charles A. Green, secretary, Rochester, N. Y., and receive the report.

A PEEP into the frame yard of one florist of our acquaintance who doesn't seem to be very prosperous, revealed a mass of pots—some whole but many broken—thrown promiscuously around as the plants had been knocked out of them, the sash scattered around in various dangerous positions—dangerous not only to visitors but to the sash themselves, as was evidenced by many a broken light. "Haven't had time to clean up any yet," apologized our friend as he arose from the hammock in which he had been lounging all the morning.

THE greenhouses and accessory buildings constitute the factory: the soil, fertilizers, stock plants, etc., the raw material; the hose, knives, pots, syringes, etc., the tools. As in other factories, the larger profit is made by the one which by the least expenditure in handling the raw material turns out the largest amount of product of good quality. Spare no labor which is absolutely necessary to ensure quality, but be sure that every move counts to the fullest possible limit. Run your factory on factory principles.

MR. BLANC sends us a letter received by him in which a request is made for a copy of his "Electrical catalogue for plants." In the accompanying note Mr. B. says: "Our catalogue men are evidently behind the age as you will notice by enclosed. Can't some of your readers 'enlighten' us on the subject? An 'electrical' catalogue must be a good thing. It would throw so much light on all that is new and all that is old that there would be no difficulty in making a choice."

THE FASHIONS in bedding plants are shown in a marked way at the New York auction sales; formerly no geranium could be sold but the General Grant, which sold very largely. Now doubles only sell and those in but a moderate way. Trays of *Centaurea candidissima*, fine plants, sold as low as one cent per plant. Alternanthera sold better but they are sure to suffer the same decline.

IF YOU HAVE anything to sell to florists, that you are convinced florists ought to

have, don't fail to show it at the exhibition in connection with the convention at Boston this month, and call the attention of the trade to your exhibit in the columns of our convention supplement.

A VERY neatly printed book containing prints of fifty varieties of daffodils has been received from Mr. W. B. Hartland, Cork, Ireland. The engravings are well executed, and the book will be of considerable interest to lovers of daffodils.

RECENT LOSSES paid by the Florists' Hail Association are \$99.25 to Augustus Doll, Manchester, Pa., and \$153.55 to John Juengel & Son, St. Louis, Mo.

SEND YOUR adv. for the convention supplement to reach us by August 7 at latest and as much earlier as possible.

AN Evansville, Ind., correspondent writes endorsing the bloom of the cotton plant for the national flower.

SUBSCRIBER will find the address of the Florists' Hail Association on the next to the last page of this issue.

News Notes.

DENVER, COLO.—H. Housley has added four new houses.

SPOKANE FALLS, WASH.—Rose Wright is building two new houses 50x20 each.

SIoux CITY, IA.—J. C. Remison is about to open a down-town seed and floral store.

FLINT, MICH.—D. P. Smith succeeds Smith & Evans, the latter having removed to Utah.

AURORA, ILL.—M. R. Saunders is building three 100-foot houses with widths of 11, 18 and 27 feet.

PHILADELPHIA.—Mr. Harry Bayersdorfer of H. Bayersdorfer & Co., has returned from his European trip.

MILWAUKEE.—A conservatory chapel will soon be built at Forest Home Cemetery. It will be heated by steam.

HARRISBURG, PA.—Mr. J. Laurence has been closing out the stock of the late G. Petterson, who died February 26 last.

SABETHA, KAN.—A long drought has seriously injured plants here. We have not had enough rain all summer to wet the ground an inch.

NORRISTOWN, PA.—A heavy hail storm smashed over 900 panes of glass on the greenhouses of E. Metcalf the evening of July 17. Loss estimated at \$200.

MONTREAL.—Walter Wilshire, the secretary, and Alfred Wilshire, the assistant secretary of the Gardeners' and Florists' Club, are both very ill with typhoid fever.

SPRINGFIELD, ILL.—H. P. Buckley has in course of construction three new houses. One 75x20, another 75x33 and the other 36x22. All to be heated by steam.

STILLWATER, MINN.—Alfred C. Bentley, formerly of Dubuque, Iowa, has bought out the greenhouses and trade of Mrs. Geo. Low, the purchase price being \$6,000.

LYNN, MASS.—Spring plant trade one-fourth larger. Prices about same as usual, 4-inch geraniums retailing at \$1.50 a dozen. Quality of plants was above the average. No change in collections.

BRICKSPORT, ME.—Spring plant trade was larger than usual. Quality of plants rather below the average owing to unfavorable weather. 4-inch geraniums retailed at \$8 a hundred. Collections are satisfactory.

BALTIMORE.—The schedule of premiums for the fall exhibition of chrysanthemums and other plants of the Gardeners' Club, to be held next November, has been printed. Copies may be had on application to Henry Bauer, secretary, 1875 N. Gay street.

SARATOGA, N. Y.—Spring plant trade about 25 per cent larger with increased call for palms. Prices were about as usual, 4-inch geraniums retailing at \$12 a hundred. Quality of plants was about same as previous years. Collections are about as usual.

MAYWOOD, ILL.—Amling Bros. have completed three houses 100x22 each and are building two more 100x19 each and one 100x10. All are to be heated by low-pressure steam. Mrs. M. H. Rockafellow has built three new rose houses 125x20 each, to be heated by steam. The Illinois Nursery Co. has opened an office here and will make this their headquarters.

WATERLOO, N. Y.—The body of Albert Dohles the florist was recently found in Owasco Lake. He is believed to have committed suicide while insane. The deceased was a member of the Society of American Florists and was well liked for his many good traits of character. He was 42 years of age, and leaves a widow and four children—two sons and two daughters.

MINNEAPOLIS, MINN.—Spring plant trade was about 25 per cent larger than usual. Prices were lower, 4-inch geraniums retailing at 10 cents to 20 cents each. Quality of plants was considerably above the average. Collections are about the same as last year. The increase in number of greenhouses since last year will more than double the output of plants. It is to be feared that the competition next spring will be uncomfortably sharp.

CEDAR RAPIDS, IOWA.—Florist H. G. Higley in conjunction with several of the churches and charitable institutions of this city will give an exhibition of chrysanthemums November 3 to 8. The exhibition will be held in a large tent decorated in Japanese style, the plants will be shown in beds as in a garden, and among them will be the booths of the churches, etc., presided over by ladies in Japanese costumes. "The Mikado's Garden" is the title adopted for the affair.

POTTSVILLE, PA.—The florists of this city are busy gathering up the broken bits of the glass which previous to July 17 covered their greenhouses. The damage is the result of a terrific hail storm on that date, the stones varying from the size of chestnuts to that of hen's eggs. J. M. Madison & Co. lost 18,000 feet of glass out of 20,000. They estimate the total loss including damage to plants at about \$2,000. John D. Joyce lost between 10,000 and 13,000 square feet of glass, and estimates the total loss at \$1,500. Charles Zimmer who had but recently became the owner of the Mount Vernon nursery lost 12,000 feet of glass. There was not a whole pane of glass left in the roofs of his houses and the falling glass and hail destroyed nearly every plant on the place. The storm covered a large area of this section of the state.

FOR SALE. THE CUTS

USED IN ILLUSTRATING THIS PAPER.

Write for prices on any which you have seen in previous issues and would like.

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LILY OF THE VALLEY,
And the Choicest ROSES for the
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We keep a large supply of Fancies and Carnations always on hand. Return telegrams sent immediately when unable to fill orders.

AUCTION SALES OF PLANTS SPRING AND FALL

Wholesale Markets.

Cut Flowers.

BOSTON, July 26.	
Roses, Ter.	\$1.00
" Fancey	2.00 @ 4.00
Gladioluses	6.00
Carnations	.50 @ 1.00
Asters	1.00
Pink pond lilies	8.00
Sweet peas	10
Smilax	12.00
Adiantums	1.00 @ 1.50

PHILADELPHIA, July 25	
Roses, Beauties	\$5.00
" Mermetts, Brides	3.00 @ 4.00
" La France	3.00 @ 5.00
" Perles, Niphetos	2.00 @ 3.00
" Gontiers	1.50 @ 2.00
Carnations, long	1.00
Carnations, short	1.00
Gladiolus stalks	4.00
Tuberose stalks	5.00
Valley	4.00
Sweet peas	.50
Corn flowers	.50
Smilax	15.00
Adiantums	1.00

NEW YORK, July 26.	
Roses, Bon Silene	\$1.00
" Gontiers	1.00 @ 2.00
" Perles, Sunsets	2.00
" Niphetos, Cousins	2.00 @ 3.00
" Watteville, Hostes	3.00
" Mermetts, Brides	3.00 @ 4.00
" La France, Albany	4.00 @ 5.00
" Bennetts, Jaccs	2.00
" Beauties	8.00 @ 15.00
" Hybrids	5.00 @ 10.00
Smilax	5.00 @ 10.00
Carnations, long	1.00
Carnations, short	1.00
Alphonse	.50
Adiantums	1.50

CHICAGO, July 28.	
Roses, Perles, Niphetos	\$4.00
" Gontiers	3.00 @ 4.00
" Bon Silene	1.50 @ 2.00
" Mermetts, La France	4.00
" Bennetts	5.00 @ 10.00
" Am. Beauties	10.00
" Bennetts, Dukes	4.00
Carnations, short	.75 @ 1.00
Carnations, long	1.00 @ 1.50
Callas	10.00 @ 15.00
Smilax	15.00 @ 20.00
Valley	3.00 @ 4.00
Tuberose	1.00
Sweet peas	.25 @ .50
Violets	5.00 @ 10.00
Adiantums	1.00 @ 1.25
Gladiolus	8.00

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Florists' Supplies Always in Stock.
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Orders by Mail, Telegraph, Telephone or Express
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We make a specialty of shipping choice Roses and
other Flowers, carefully packed, to all points in
Western and Middle States.
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SPECIALTIES, NEW YORK.
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ROSE BUDS IN ANY QUANTITY SHIPPED
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CUT FLOWER DEPT.

Our stock is cut with special reference to shipping trade, which comprises the greater part of our business. We therefore claim that we are better prepared to attend to the wants of FLOWER BUYERS, outside of Chicago, than any house in the West.

OPEN DAILY: { Week days till 7 P. M.
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27 Washington Street, CHICAGO.

We always have choice, Fresh Cut Flowers in season. The best packers in the trade. Orders promptly shipped. Store open until 7 P. M. Sundays until 12 M.

WIRE WORK A SPECIALTY.
Extra designs made to order. Write for price list.
Consignments Solicited. Telephone #46.

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116 Dearborn Street, CHICAGO.
OPEN DAILY: { Week days till 7 P. M.
Sundays till 2 P. M.

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FRESE & GRENZ,
(Successors to O. W. FRESE.)
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Consignments Solicited. Special attention paid to
shipping. Mention AMERICAN FLORIST.

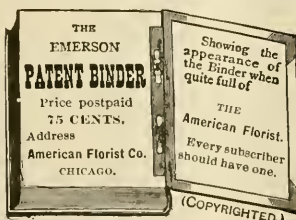
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The choicest Cut Flowers at lowest market rates
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Code when ordering by telegraph. For prices, etc.,
Address,
J. L. DILLON, BLOOMSBURG, PA.

DIRECTORY.
Every Florist, Nurseryman and
Seedsman should have one.
AMERICAN FLORIST CO., Chicago.



Re Seed Trade.

SEED TRADE ASSOCIATION.

ALBERT M. McCULLOUGH, Cincinnati, president; JOHN FOTTLER, Jr., Boston, secretary and treasurer. The ninth annual meeting at Cincinnati, June, 1891.

SMALLEY SEED CO. of McPherson, Kan. are reported to have failed with liabilities of \$12,000.

J. A. EVERITT SEED CO. is reported to have organized at Indianapolis, Ind., to succeed J. A. Everitt lately assigned.

THE ASSIGNEE of James King reports assets at full invoice value \$7,000; liabilities \$13,200. An offer of 25 per cent. is made in full settlement, one-third January 20, 1891; two-thirds June 20, 1891. Not secured.

W. W. RAWSON & CO. will remove their seed business to Arlington, Mass., and vacate their seed store in Boston. J. M. Gleason, who has been in the seed department of Rawson & Co., has commenced a business engagement with Schlegel & Fottler.

W. H. CARSON, of New York, has accepted the position of general manager with Mr. Henry A. Dreer, of Philadelphia, and is now in charge. Both Messrs. Schlegel & Fottler and Dreer may be congratulated in securing the services of two such capable men who have been so long and so favorably identified with the seed trade.

MR. WILLIAM RUDDELL, for some years traveler for W. Atlee Burpee & Co., of Philadelphia, died in that city July 21, of Bright's disease, aged 35 years. Mr. Burpee in a private letter speaks in the highest terms of Mr. Rudell's loyalty and faithfulness both to his employers and their customers. Mr. Rudell was well and favorably known in the American trade and his early death will be a matter of sincere regret.

THE TREASURY DEPARTMENT has always held and has decided as law that all importations of seeds must be assessed and duty paid on their market value at the time they are imported. This point has been decided on peas from Canada more than once, even when the importer swore that his invoice was correct and proved it to be a fact, the treasury department holding that the peas must pay duty on their market value when imported. In this connection the question arises "can American seedsmen contract with foreign growers for large quantities each year for a term of years, securing their supply a long time in advance and pay duty when imported on contract prices instead of actual market values at the time of delivery." Are not these seeds subject to duty under the treasury ruling at market rates? If so, would this matter not come in the line of investigation now being made by the committee appointed by the Seed Trade Association in regard to fraudulent importations. If seeds contracted for as stated above are being brought into the country contrary to law, should not the matter be ventilated?

Leaves of Advice From a Limb of the Law.

(For Young Florists.)

XIV.

Think of taking in a partner, do you? I suppose your idea is that because you

drew a prize in the marriage lottery you will be quite as lucky in the lottery of partnership. Your philosophy, sir, is bad. Every man's life has risks enough without creating them. A good business associate is a prize. But take care, don't crowd two bulls into a small pot.

Oh, yes, I understand, you want capital to increase your business. Not satisfied with slow growth and small income. The great mistake young men fall into is to imagine that the outside world knows anything about or cares anything about the written articles of a co-partnership, how they divide their profits, who is to sign and who not to sign, what one puts in and what another doesn't put in, etc. The only thing the world cares to know is who are the general partners and what is the nature and scope of the business. That's all. You can't change the liabilities of a co-partnership as to third parties by any articles you may draw up. Bear that in mind. If your partner goes to a money lender and asks for a loan for "partnership purposes" the lender is put upon his inquiry, but not so if your partner makes purchase of a thousand tulip bulbs. It may be a foolish transaction sure to end in a loss, but the act is binding upon you, no matter what your articles say or what private agreement you may have between you. You may bind your partner not to give a firm note or not to sell on credit, but suppose he does?

Some kinds of business, and yours is one of them, depend more largely upon skill, industry and application than they do upon the use of capital. Hence you should give this matter the weightiest consideration before signing any articles. As you may be aware, the moment partners fail to agree as to the manner in which the concern is to be managed, it becomes necessary to apply for a receiver to settle up the business. You'll see, therefore, at a glance that a co-partnership is a sort of "commercial marriage." But let us assume that you have found a proper bridegroom and that the sacred compact has been signed, sealed and delivered.

First, disability. A partnership—John Doe & Co.—can't hold real estate, it must be decided to the partners as tenants in common. It can not sign any instrument under seal, that is using its firm name. Each partner must sign individually and the fact of the partnership must be set forth in the body of the instrument. A power of attorney or chattel mortgage signed "John Doe & Co." is invalid. It can not be sued excepting by setting forth the name of each partner. But worse than all, one partner can not sue another. Whenever partners quarrel and it becomes necessary to examine and settle partnership affairs, there must be an accounting in a court of equity. But where the partnership had ended and one partner gives the other a note, due bill, mortgage or what not, of course they no longer stand in the relation of partners and may proceed as ordinary individuals. But understand thoroughly that simply because your books show a balance due you of \$1,000 you cannot sue your partner for it. It is not an ordinary debt in any sense of the word.

I'm glad you asked that question. I may answer that before a court of equity will interfere and order a receivership there must be some good and valid ground. Mere peevishness resulting from dyspepsia, or even acrimonious disputes, so long as they do not work damage to the business will not justify the court in terminating a partnership. Gross intem-

perance, neglect of business, wrongful use of partnership funds, wanton display of ignorance in business matters will always serve as basis for an injunction and receiver.

Now let us consider how a partnership may terminate. 1, By the consent of all the partners. 2, By the limitation of the articles. 3, By the death of one partner. 4, By the insanity or imprisonment for felony of a partner. 5, By the happening of some event; act of God or otherwise which makes the further transaction of business an impossibility. 6, By the discovery that the business is against good morals or is forbidden by law.

Now another thing. I have often heard you complain that it is difficult for a man to get justice done him nowadays; but wait until you have quarreled with a partner and then you'll have real cause to complain. Of course no written articles are needed to constitute a partnership. If you and your neighbor buy the contents of John Doe's nursery or hot house on speculation, that is with intent to sell and divide profits, you become partners as to that transaction, and it doesn't make the slightest difference in the world what your agreement was. Suppose it was to the effect that John Doe was to supply the money and you do the selling; and suppose further, that the transaction resulted in \$1,000 loss, you would be responsible for the whole amount. True, if you paid it you would have a right of action against John Doe for his share, but the daisies might grow over you before you could collect it.

Well, let us suppose that you go into this proposed partnership and get tired of it and withdraw from it after the first year. Now comes the question of notice to all your customers, and to the world at large, that you are no longer a member of the concern and must not be held liable for any notes or contracts made in the partnership name after your withdrawal. Unless you bring home notice of this dissolution your liability continues and you are at the mercy of an unscrupulous man. There are two classes of people entitled to notice, those who have had transactions with your firm and those who have not. A publication of the notice of dissolution will be binding upon the second class, but not upon the first. To cut off an old customer from any right to fall back upon you after your retirement you must be in a position to prove that he had personal notice of the dissolution. In other words you must be able to show that he read the notice or heard of the dissolution from you or from your agent or attorney. Usually partners imagine that merely mailing a printed slip to each customer is sufficient. It may answer all purposes or it may not. It is not conclusive. You must prove actual knowledge. For instance, if the customer wrote using the new firm style it would be proof of actual knowledge in him. It might be sufficient to show that the fact of the dissolution was generally known among business men and it might not.

You see that this question of partnership at once complicates business transactions. Therefore enter not into it lightly or without due consideration of all its phases. Admit that you double your income the first year, what will that avail you if you get into a dispute the second and "law it all away," as the saying is, in a court of equity quarreling over partnership accounts. I look on the dark side of things, do I? Well, possibly I do. Good day.

UNCLE BLACKSTONE.

J. C. VAUGHAN, CHICAGO.

SOME SEASONABLE FLOWER SEEDS, FOR IMMEDIATE SOWING.



VAUGHAN'S INTERNATIONAL PANSY.

VAUGHAN'S INTERNATIONAL PRIMULA MIXTURE, contains the most striking and brilliant colors. Pkt. 50c.

CINERARIA HYBRIDA GRANDIFLORA, VAUGHAN'S INTERNATIONAL MIXTURE, the finest large-flowering sorts, dwarf and semi-dwarf mixed. Pkt. 50c.

GLOXINIA HYBRIDA, best horizontal and upright, tigered and spotted in finest mixt. Pkt. 50c.

CYCLAMEN PERSICUM GIGANTEUM, largest flowers and best sorts mixed. Pkt. 50c and \$1.00.

STOCKS, BROMPTON AND EMPEROR WINTER, white, pink and crimson, each Pkt. 25c.

SMILAX SEED, new crop, oz., \$1.00; ¼ lb. \$3.00; 1 lb. \$10.00.

WALLFLOWER, best double mixed, Pkt. 25c.

MIGNONETTE MACHET, best for pots, Pkt. 10c; oz. \$1.00.

MUSA ENSETTE, new seed, per 100 seeds \$2.00; 1000 seeds \$17.50.

NEW DWARF MARGUERITE CARNATION.

The most distinct novelty of the season. It proved all we claimed for it in our spring list. We planted several hundred plants in our grounds and found not one single flower amongst them, all being double, fragrant and of good form and color. We will soon have new seed and can supply it at 25c. and 50c. per pkt.

VAUGHAN'S INTERNATIONAL PANSY MIXTURE comprises all the very best German, English and American strains, together with the Giant Bugnot, Cassier and Improved Trimardeau Pansies, and is undoubtedly the best mixture for florists. Pkt. 50c.; ½ oz. \$1.50; oz. \$3.00.

GIANT CASSIER, a choice variety of colors. Pkt. 50c.; ½ oz. \$1.50.

GIANT BUGNOT, the finest strain in existence. Pkt. 50c.; ½ oz. \$2.00.

GIANT TRIMARDEAU, WHITE, flowers very large with violet center. Pkt. 50c.

GIANT COALBLACK, very large and of fine form. Pkt. 50c.

GIANT TRIMARDEAU IMPROVED, contains all the new shades and colors and will therefore give entire satisfaction. Pkt. 50c.; ½ oz. \$1.50.

GIANT PANSY MIXTURE, this mixture comprises all the above Giant Pansies. Pkt. 50c.; ½ ounce \$1.00; ounce \$2.00.

VAUGHAN'S PREMIUM PANSY MIXTURE, a mixture of over 30 different shades, containing many of the most popular and odd colors. Pkt. 25c.; ½ oz. \$1; ½ oz. \$3.50; oz. \$6.

CHICAGO PARKS BEDDING PANSY MIXTURE, very choice. Pkt. 25c.; oz. \$2.00.

CALCEOLARIA HYBRIDA GRANDIFLORA, tigered and self-colored in finest mixture. Pkt. 50c.

HOLLYHOCK, best double white, pink, flesh, yellow and crimson; each, Pkt. 25c.

CARNATION VIENNA DWARF, a very good strain. Pkt. 15c.; ¼ oz. 50c.



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READY NOW:

LILIAM HARRISII,

ROMAN HYACINTHS,

FREESIA, ETC., ETC.

We were the first in the U. S. to arrange Special Extra Early Shipments of Roman Hyacinths.

We can save you money on **IMPORTED BULBS** of every class. Write for prices, sending list of your probable wants.

We have some fine **FORCING ROSES**, 4-inch. Write for prices.



Scarcity of White Flowers Fall and Early Winter 1889.

I have been expecting to see in the AMERICAN FLORIST some comments on the, I think general, scarcity of white flowers, with suggestions of a remedy in future. No doubt many florists will remember the trouble they found in making up funeral desigues, etc., in many cases using immortelles and cape flowers in place of fresh flowers in close short-stem work. Most likely many florists will say that sort of work is out of date, others will say we used carnations and roses, but carnations at that time were scarce, and in many places roses none too plenty, and with many florists when roses and carnations give out there is nothing to fill in with. Alyssum often comes in useful for filling in, but cannot be used extensively. The different varieties of stevia and eupatorium are useful but they take up valuable space too long for the short season they are in bloom. Chrysanthemums fill the gap nicely for about six weeks, taking the place of almost everything else, but after they are gone a florist must look around for something to take their place and often look in vain. Romans can be had by November 1 but at that early season the spikes are few and small and must be used sparingly.

At the S. A. F. conventions many subjects come up for discussion and are discussed both wisely and well. I think it might be of interest to many florists to have the subject, the scarcity of flowers at a certain season and a remedy for such scarcity in future, discussed. If each member who took an interest in the discussion would name a plant or plants (omitting roses and carnations) which he is using for the season named, I think it would be the means of introducing many useful and possibly much neglected plants.

For many years past I have grown largely double white primulas and single white azaleas, both of which give perfect satisfaction, never any failure. The primulas come in bloom in November and are at best from early December until hot weather, the flowers a pure white and will remain for a week, either on the plant, in a box, or made up, which is more than can be said of carnations. For large bunches or vase work, stems from 7 to 10 inches long with 15 to 25 flowers and buds on each. I think anyone growing them for the first time will not discard them in a hurry.

White azaleas. I use the old India alba from October 1 to December; from then until June Fielder's White, which I find the best for cut flower work. Strong plants grown without pinching will furnish strong shoots from 7 to 10 inches long with from 6 to 20 flowers to a shoot, like a truss of rhododendron, of the purest white and will remain so for a week with the stems in water. Many of the double azaleas are useful after Christmas but as they make but a short growth they are not as useful for long stem work as the single varieties.

I do not know of any plants which give such satisfactory results with so little light, heat and space. Both can be grown in the same temperature as carnations and the dark days do not hurt them.

Detroit, Mich.

S. TAPLIN.

KALAMAZOO, MICH.—Geo. Taylor has completed two new houses, one 100x18½ and the other 85x18½. Heated by steam.

EAST SAGINAW, MICH.—Chas. Fruch is completing three rose houses 100x20 and another house 106x18.

ZIRNGIEBEL'S NEW GIANT MARKET AND FANCY PANSIES

Have been exhibited everywhere and admitted to be the finest strains at the present time.

"Huge jewels of velvet and gold."—Boston Transcript, May 10th, 1893.

Trade packages of 1,500 and 500 seeds respectively, at \$1.00 each. Full printed directions for the proper cultivation of these pansies with each package of seeds.

IN ANSWER TO MANY INQUIRIES:

We have no seed of Giant Fancy Pansies to sell by weight, being too scarce and high. We renew our stock every season, from seed obtained direct from Messrs. Bugnot and Cassier, at the rate of thirty and twenty dollars per ounce, respectively (with a limited supply), as we consider their seed to be the cheapest, quality considered. We do not handle any other.

DENYS ZIRNGIEBEL,
NEEDHAM, MASS.

GRACE WILDER, AND OTHER FINE CARNATIONS. FIELD GROWN PLANTS.

H. E. CHITTY,
Paterson, N. J.

CARNATIONS.

10,000 FIELD GROWN, READY IN SEPT.

MRS. FISHER, SNOWDON,
GRACE WILDER, VICTOR,
ALEGATIERE, FLORENCE,
HINZ'S WHITE, ANNA WEBB.
Also field grown CHRYSANTHEMUMS.

Will make Contracts Now.

R. T. LOMBARD, WAYLAND, MASS.

CARNATIONS.

Grace Wilder, White Grace Wilder, Florence, Etc. Also Bouvardias, strong ground plants, healthy stock, ready Sept. 1st. Send your order early.

PRIMROSES out of 2½-in. pots, \$3 per 100

SMILAX out of 3-inch pots, \$3 per 100

WM. A. BOCK, North Cambridge, Mass.

CARNATIONS.

Hope to have a fine lot of Field-grown plants in the Fall.

Will make contracts NOW.

W. R. SHELWIRE, Carnation Grower,
AVONDALE, PA.

OUR NEW

DIRECTORY

giving a complete and accurate list of the
Florists, Nurserymen and Seedsmen
of the United States and Canada is

NOW READY.

Price, \$2.00.

AMERICAN FLORIST CO.,

54 La Salle Street, CHICAGO.

PANSY*SEED. NEW CROP.

TRIMARDEAU, choicest French mixed, unsurpassed in brilliancy of color and size of flowers, some measuring from 3 to 1 inches across. Price, per lb. \$25; oz. \$2.50; ½ oz. \$1.50; ¼ oz. \$1; 1/8 oz. 75c; ptk. 50c. Trimardeau, Golden Yellow, ½ oz. \$1.50; 1/8 oz. \$1; ptk. 75c. Trimardeau, Deep Purple, ½ oz. \$1.50; 1/8 oz. \$1; ptk. 75c.

BUGNOT'S (NEW), spotted, large flowering show Pansies, somewhat smaller than Trimardeau, but of even more exquisite markings and richer colors, pronounced by many the finest strain produced yet. This variety produces few seeds and is not very scarce. Per lb. \$40; ½ oz. \$4.50; ¼ oz. \$3.00; 1/8 oz. \$2.00; 1/16 oz. \$1.50; ptk. 75c.

CASSIER'S 3 and 5 bicolored Giant, extra fine. Per lb. \$3.00; ½ oz. \$2.00; ¼ oz. \$1.50; 1/8 oz. \$1.00; 1/16 oz. \$1.00; ptk. 50c.

ODIER, or IMPERIALS. Prize Pansies, 3 and 5 bicolored, extra. Per oz. \$3.00; ½ oz. \$2.50; ¼ oz. \$1.50; 1/8 oz. \$1.00; ptk. 50c.

FAIST (King of the Blacks), fine for hedging. Per oz. \$1.00; ½ oz. 75c; ptk. 25c.

EMPEROR VILLAGE, dark blue. Per oz. \$1.00; ½ oz. 75c; ptk. 25c.

LORD BEACONSFIELD, purple. Per oz. \$1.00; ½ oz. 75c; ptk. 25c.

Bronze, fine mixed, per oz. \$1 ¼ oz. 75c; ptk. 50c.

White, fine mixed, per oz. 75c; ½ oz. 50c; ptk. 25c.

Yellow, fine mixed, per oz. 75c; ½ oz. 50c; ptk. 25c.

All colors, the German mixed, per lb. \$6 00; oz. 50c. ½ oz. 35c; ptk. 15c.

All colors, improved large-flowering, mixed, per lb. \$10.00; ½ oz. \$1.00; ¼ oz. 75c; ptk. 25c.

CHENERIA Hybrid, finest, mixed, ½ oz. \$1; ptk. 25c.

" Plenisissima, dble. mixed, ptk. 40c.

" PRIMULA CHINENSIS, fine mixed, 100 seeds 50c; ptk. 20c.

" " single fringed, mixed, extra, 100 seeds \$1.25; double fringed, mixed, 100 seeds 75c.

" " Obconica, 100 seeds \$1.00.

For other seeds see catalogue. Terms Cash.
Address J. A. DE VEER,
18 Burling Slip, NEW YORK.

PANSIES EXTRA

THE JENNINGS STRAIN.

"This seed is saved only from the finest selected plants, and I warrant it in every respect to give satisfaction. I make a specialty of Pansies, and will have none but the best. They are all of the largest size and fine colors; extra fine for winter flowering or spring sales. I wait every florist who grows pansies to try a packet of this seed. One old florist says 'they are the best I have grown in 21 years.' 'The proof of the pudding is the eating.' I shall improve this strain from year to year and send out none but the very best."

Trade packet, 25c, 50c and 81 each; ½ oz. \$3. Plants in quantity, ready Sept. 1. Cold frame size, nice plants, 30c. per 100; \$5 per 1000. Winter blooming size, in bloom, \$1.00 per 100. Address:

E. B. JENNINGS, Box 76, Southport, Conn.,

CARNATION, PANSY AND VIOLET GROWER.

ROEMER'S SUPERB PRIZE PANSIES.

"The Finest Strain of Pansies in the World."

Introducer and Grower of all the leading Novelties.

Catalogue free on application.

FRED. ROEMER, SEED GROWER.

QUEDLINBURG, GERMANY.

Pansy Seed

of the best quality, in the 24 best exhibition varieties, offered at very moderate prices.

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CHOICE PANSY SEED.

MAMMOTH SUNBEAM STRAIN.

"The finest and most perfect strain of Mammoth Pansies yet produced. Very large, of the finest brilliant colors. By high culture and careful selection I have obtained this superb strain, and have one of the finest collections in cultivation. Every florist who wishes to grow fine Pansies should be sure to sow some of this seed. Fresh, well-ripened seed. Per liberal trade ptk. 50c; 3 pkts. 10c; 5 pkts. \$1.00.

JOHN F. RUPP, Shiremanstown, Pa.

C. H. JOOSTEN,

3 Counties Slip, NEW YORK,

—IMPORTER OF—

FORCING BULBS.

IMPORTED HARDY ROSES,

Strong Clematis, Etc., Etc.



If you would have "good luck" with your forcing stock, try

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Send a list of your wants, stating kinds and quantities, for estimate.

JOHN GARDINER & Co.
PHILADELPHIA.

WE WANT YOUR ORDERS NOW FOR



CHINESE NARCISSUS,
AURATUM, LONGIFLORUM, ALBUM,
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OTHER JAPANESE BULBS.

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OF THE VALLEY, ETC.**

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We beg to offer the following Bulbs for Early Forcing :

LILIUM HARRISII.....5 to 7 inches in circumference
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SEEDS FOR PRESENT SOWING.

Extra choice strains of Primula Chinensis, Calceolaria, Cineraria, Pansy, etc., 50c. and \$1 per pkt. An extra selected strain of Highland Mary Parsy, very fine, per pkt. \$2.

DAISY Be lis P. rennis fl. pl.....
" " " Alba.....
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" " " Snowball.....

50 cts. per packet.

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V. H. H. & Son beg to state they always have a number of first class gardeners' names on their books waiting for situations, and would be glad to hear from anyone requiring same.

GRAND SPECIAL DYE OF NATURAL FRENCH IMMORTELLES, WHITE AND ALL COLORS.

DYEING AND BLEACHING BY GERMAN PROCESS.

I offer Immortelles original and by my special process. My large dyeing establishment enables me to furnish perfect work and irreproachable colors at excessively low prices.

Since 1860 my house has been occupied with this specialty alone, and I have renounced all other branches of my trade.

SAMPLES AND PRICES FREE ON APPLICATION.

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For prices F. O. B. at St. Louis, address

THE MICHEL PLANT AND SEED CO.,
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DUTCH BULBS, FLOWER ROOTS & PLANTS
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Offer to the Trade as usual all kinds of the best
**Hyacinths, Tulips, Crocus, Lilies
Narcissus, Roses, Azaleas,
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(CONFERENCE SORTS.)

Illustrated Drawings (book shape) from nature, by Gertrude Hartland, of over 50 finest sorts. The book which is copyrighted, is put up specially as a **TRADE REFERENCE**; finished in the most perfect style, toned paper, gilt edge, etc., and the drawings are considered the most faithful representations published in Europe. Copies mailed, post-paid to the United States on receipt of postal order for One Shilling and Sixpence. This will include a separate wholesale list of forcing sorts, for a guaranteed July and August delivery, direct from Liverpool.

WM. BAYLOR HARTLAND, Seedsman,
24 Patrick St., CORK, IRELAND.
Daffodil grounds (10 acres) ARD CAIRN, CORK.

**Florist Bulbs and
CUT FLOWERS.**
THE WISCONSIN FLOWER EXCHANGE,
133 Mason Street, MILWAUKEE, WIS.

HENNEQUIN, DENIS & Co.,

ANGERS, FRANCE,
Seed and Bulb Growers,

Offer the following *New Crop Seeds*, for prompt delivery, subject to market fluctuations:

	PER KILO
CAULIFLOWER, Giant (of Naples) or Veitch's	
Autumn Giant, very early, frs.	16.50
" Same, early	14.00
" Same, medium early	12.75
" Same, late	11.50
" Lenormand, dwarf,	21.00
" Medium solid (of Paris)	21.00
" Solid (of Paris)	14.00
" Late (of Alger)	15.00
ONION, white (of Barietta), the earliest	11.50
" " The Queen	8.00
" " Nocera	7.50
" " Early (of Paris)	5.00
" " (of Valencia), flat	3.75
" Red (of Bassano), flat	3.50
" Dark red, Giant (of Rocca)	3.50
SALSFY, white per 100 kilos, 200	3.50

For other seeds (vegetable, commercial or flower) bulbs, etc., see catalogue.

Seed grown under contract.
Address for full particulars and terms our sole agent for the U. S. and Canada,

J. A. DE VEER,
18 Burling Slip, - NEW YORK.

Cleveland.

The principal topic of conversation among the florists has been the recent hail and wind storms. It has always been supposed that Cleveland was not in the "hail belt" but recent events have entirely disproved that theory.

Among those who suffered in the storm of June 5 was Mrs. E. G. Campbell, who places her damages at \$600; Mrs. James Eadie of Glenville, who lost \$500; L. Warneke on Woodland avenue, who was badly peppered; J. Campbell & Son on Cedar avenue, Hills & Murphy on East Prospect street.

One peculiarity of this storm was that it came in rifts. Greenhouses situated only a block or two away from those so badly wrecked, escaped entirely, not losing a pane of glass. The damage to plants was also heavy. The storm came from the northwest and the hail (averaging the size of walnuts) came like bullets. They were solid clear ice and the wind drove them with irresistible force through whatever they encountered, passing through thick plate glass as readily as through single thick.

On June 23 we had our second great storm. This was of the nature of a tornado accompanied by hail. J. M. Gasser's Rockport plant lay near the track of the storm and he mourns the loss of over a thousand dollars worth of glass and plants. Three of his 100x22 foot greenhouses are so badly broken they will have to be entirely reglazed. Mr. Gasser has been peculiarly unfortunate at the hands of the elements this year, as earlier in the season he had an explosion from his coal oil tank which set fire to the sheds and greenhouses, ruining the smilax house, the palm house and burning out the ends of several others, which allowed the cold air to come in, nearly finishing what was left after subduing the fire. Mr. Gasser places his loss from all sources this year from fire, hail, wind and cold at \$6,000. Mrs. Campbell will be compelled to reset the best part of 6,000 feet of glass.

W. T. Long has opened a new floral store in the new Arcade building. He makes a very creditable show of flowers. The store is in charge of his daughter.

H. Reindfleisch has also started a new store near the corner of Pearl street and Franklin avenue on the west side.

Our market florists are complaining that this season's results will not equal last year, the weather being so much against them. The complaint seems general.

J. M. Gasser is hatching up some device to prevent loss from hail storms. He is going to experiment with several schemes.

We had a very fair crop of June and July weddings. Largely plants and loose cut flowers in vases—scarcely any designs. One kind of flower generally predominated, being classified as Sweet Pea weddings, Rose weddings, Marguerite weddings, etc. C.



—FRESH SEED:

We have made special arrangements with a large grower of this charming plant, and offer fresh, new seed at a price never before heard of. As long as stock lasts, we will fill orders from this advertisement at \$1.00 per thousand seeds.

John Gardiner & Co., 21 N. 13th Street, Philadelphia, Pa.

SMILAX.

My Smilax are from 2½-inch Rose and 3-inch Standard pots. They are cut back several times to make strong, bushy plants; and are in every way a first-class article that is sure to please. A sample of the largest and smallest size that will be used to fill your order, mailed on receipt of 10 cts.

PRICE, 2½-inch, \$2.00 per 100; \$18.00 per 1000. 3-inch, \$3.00 per 100; \$25.00 per 1000.

PANSIES.

Will have a full supply of fall grown Seedlings, through September, October and November at \$5.00 per 1000. 75 cents per 100, free by mail.

Quality is the principle feature in Pansies. My strain will meet all demands in this respect. Some of my customers say they are the best in the country. Give them a trial and judge for yourself.

L. B. 338.

ALBERT M. HERR, LANCASTER, PA.

CHARLES D. BALL,

HOLMESBURG, PHILADELPHIA, PA.,

PALMS, FERNS AND DECORATIVE PLANTS.

My establishment is devoted exclusively to the culture of such plants. The stock is one of the largest, and CANNOT BE EXCELLED IN QUALITY. Prices always moderate.

TRADE LIST ON APPLICATION.

500,000 YOUNG PALMS

FOR GROWING ON.

ALL SIZES.

KENTIAS.
ARECAS.
LATANIAS.
CHAMEROPS.
COCOS.
PHOENIX.

Write for Special Prices.

Siebrecht & Wadley,

ROSE HILL NURSERIES.

New Rochelle, N. Y.

Mention American Florist.

ORCHIDS! ORCHIDS!

Many additions of Choice New varieties this season.

Send for New Catalogue.

WM. MATHEWS,

UTICA, N. Y.

CUT BLOOMS AT ALL SEASONS.

ORCHIDS

Cheap as Good Roses.

Send 8 two cent stamps for Catalogue and Plate.

BRACKENRIDGE & CO., Goyanstown, Md.

FARLEYENSE

in 2½-inch, ready to shift into 4 inch.

\$25.00.....per 100.

\$200.00.....per 1000.

FISHER BROS. & CO.,

MONTVALE, MASS.

JAPANESE PLANTS,

Trees, Shrubs, Bulbs, Seeds, Etc.

offered at low prices by

FELIX GONZALEZ & CO.

Direct Importers and Exporters,

303 to 312 Wayne and Crescent Ave.,

SAN FRANCISCO, CAL

Wholesale Catalogue mailed free on application.

Boilers for Sale.

WEATHERED'S No. 4\$ 60.00

No. 5 75 00

No. 6 125 00

HITCHINGS No. 15 140 00

No. 17 110 00

No. 18 160 00

All in good condition.

ASTORIA NURSERIES, Astoria, N. Y.

THE SEVEN OAKS NURSERIES.

NEW CROP

PALM AND PANDANUS SEEDS.

We have just received a large invoice of the following, which we can offer at 20 per cent below the usual prices:

Lalania Borbonica, 65c. per lb.; \$55 per 100 lbs.

Thrinax elegans, \$5 per Thousand Seeds.

argentea, \$3 per ..

parviflora, \$2.25 ..

Livisiana oliviformis, 10 seeds, 75c.; 100 \$6.

Pandanus utilis, 100 seeds, 85c.; 1000 \$7.50.

20,000 feet of sound Treacheria cane, Pyracantha, Terminalis, and Farrier. State quantity wanted, and price will be given on application.

R. D. HOYT,

BAY VIEW, FLORIDA.

PALMS.

LATANIA,

KENTIA,

ARECA.

Apply to EDWIN LONSDALE,

WYNDMOOR, CHESTNUT HILL,

PHILADELPHIA, PA.

Mention American Florist.

Choice Stock Cheap.

	Per 100
Primula Obconica, strong 2½ in	\$3.50
Cannas, choice varieties	3.00
Geranium, in 15 choice varieties, 2½ in	3.00
Geranium White Swan, 2½ in	4.00
Geranium Rose Scented, 2½ in	3.25
Fuchsias, choice young stock, 2½ in	3.00
Dusty Miller (Centaurea gymnocarpa)	2.00
Abutilon, 4 varieties	3.10
Heliotrope Garfield, 2½ in	3.00
Trafalgar Vinca Major, 2½ in	2.50
Violets Marie Louise and white, 2½ in	3.00
Rose Bride, 2½ in	4.00

\$25 or 50 of any the above at the 100 rate

Address N. S. GRIFFITH,

JACKSON CO. INDEPENDENCE, MO.

(Independence is well located for shipping, being 8 miles east of Kansas City.)

SURPLUS STOCK.

	Per 100
2000 Verschoefii, 2½ in	\$2.00
2 00 J. Goodie 2½ in	2.00
100 Chrysanthemums, best varieties, 2½ in	2.00
200 Coleus, mixed, boxed	1.00
200 Smilax 2½ in	2.00
200 Dracena, 4 in	15.00
100 Tea Roses, 2½ in	3.00

Will exchange for 2-year old Jack Roses.

W. W. GREENE, SON & SAYLES,

WATERTOWN, N. Y.

YOU ARE CORDIALLY INVITED to visit the exhibit of cut flowers and Boilers which we shall make at the approaching Boston Convention, August 19, 20, 21 and 22.

HERENDEN MFG Co., Geneva, N. Y.

— ORIGINAL AND LARGEST GROWERS OF —

LILIUM HARRISII, BETTER KNOWN AS THE BERMUDA EASTER LILY.

— BULBS NOW READY FOR DELIVERY. —

THE BEST IN THE WORLD FOR FORCING FOR WINTER FLOWERS. WE OFFER ONLY STRONG FIELD-GROWN BULBS FROM OUR OWN GROUNDS IN BERMUDA.



COPYRIGHTED, 1890, BY F. R. PIERSON, TARRYTOWN, N. Y.

From a photograph taken the week before Easter, 1890, showing a view in one of our new iron greenhouses, here at Tarrytown, 20 feet in width by 140 in length, a crop of *Liliium Harrisii* in full bloom. This house produced over 15,000 flowers for Easter.

This is not only the best by far of all lilies for winter blooming, but it is one of the most profitable flowers that can be grown by florists. It is very easily handled, and the flowers being especially effective for decorative purposes, always command large prices. From its name some have thought it was a bulb for florists' use for forcing for the Easter market only. This is not exclusively so; it derives its name from the fact that, in Bermuda, grown in the open ground, it blooms at Easter time—hence the name "Bermuda Easter Lily"—but by growing it in this country in the greenhouse, with successive lots, it can be had in bloom all the winter from early in December until after Easter; in fact, by special culture, all the year round, or as long as cut flowers are in demand. The fact that it can be forced into bloom by the Christmas holidays adds particularly to its value, as it fills in at a time when flowers are usually scarce and in great demand at high prices, but to accomplish this the bulb must be potted early in August, something depending upon after treatment and the temperature the bulbs are grown in.

For this purpose our Bermuda-grown bulbs are indispensable, as in Bermuda the bulb reaches its highest development, and ripens off perfectly, and is ready for shipment usually by the middle of July—before bulbs in our own country have hardly begun to make their growth. Our bulbs being grown in the open ground, in a climate naturally adapted for their perfect growth, are particularly strong and healthy at any time.

The extent to which this Lily is being forced for winter flowers will be shown by a sale made by us to a large New York grower, who purchased 20,000 bulbs for more than two weeks. It is a proper place. It bears shipping splendidly, as the two following letters will show. These were written acknowledging the receipt of flowers shipped last Easter.

J. L. Russell, Denver, Colo., writes: "The Lilies came in excellent shape. I don't think I lost one; it is a pretty good recommendation for your packing." The Fort Worth Nursery Seed and Canning Co., Dallas, Texas, writes: "The Lilies arrived in perfect condition, and we must compliment you on your packing. We would not have thought they would have carried so far packed dry."

THIS VALUABLE LILY IS OUR SPECIALTY.

We grow the bulbs by the acre on our own grounds in Bermuda. We were the first to grow it in large quantities and to offer it at reasonable prices, and we have always been recognized by the trade as **HEADQUARTERS FOR THE BERMUDA EASTER LILY**; supply'ng the trade as we do, both in this country and in Europe, and we hold by far the largest and the controlling stock of the genuine variety in the market.

The extent of our operations in this bulb alone will be best understood when we state that we expect to sell from OUR CROP of 1890, over

— HALF A MILLION BULBS. —

Be sure you get the genuine *Liliium Harrisii*. In order to secure "the true variety," purchase your Bulbs from original stock, which is known to be pure. The value of this Lily has led unscrupulous or ignorant parties to plant *L. Longiflorum* in Bermuda, plotting it with *Harrisii* to increase their stock rapidly when *Harrisii* was very scarce, thus mixing the stock irretrievably, thereby rendering it absolutely valueless for forcing and we have known instances where these mixed bulbs have been sold to large growers as the genuine variety, where large loss has resulted, and dealers should look with suspicion on bulbs offered at prices less than market rates, as the supply has never yet met the demand. "Mixed Bulbs" only being offered at reduced rates.

Large growers or dealers in this bulb should write us for special prices, stating quantity of bulbs desired, and we will give lowest estimate on the same by return mail.

F. R. PIERSON & CO., TARRYTOWN, NEW YORK, U. S. A.

OUR FREESIA BULBS ARE NOW READY FOR DELIVERY. They are of unusually fine quality, nearly twice the size of Bulbs usually sent out. Intending purchasers should write us for samples and prices, stating quantity wanted.

The Amateur vs. Professional.

This subject has been spoken of before in these columns, but I wish to tell a little experience we have had here this season and make a few observations which may give you some new ideas on the subject which is intruding itself upon us more and more each season all over the American continent, especially in the east.

There are a large number of people who do not and do not intend to make a business of floriculture, who every season grow a few plants or flowers, and oftentimes more than they have use for, and who sell them to retailers at prices far below what it costs to produce them, thereby injuring the trade of those who make it their business to grow plants and flowers for the trade, and it seems as if these retailers were more than willing to buy from these people in preference to those legitimately in the trade, and then "kick" when the growers or wholesalers will not sell at the same low price or find some other market.

Now, Mr. Retailer, are you doing the fair thing let me ask you? Do you think that you will keep the good will of these same wholesalers by doing this? Can you be surprised if they find a retail market for their goods in preference to selling at a reduction to you? Can you justly "kick" if they sell below the regular retail price in order to get rid of the goods which you refuse to take at a price which would only make a loss for them? But still you do "kick" when this is done and say that they are cutting prices and injuring the business. Now, would it not be better for you to buy of persons who make a business of growing or dealing in these goods at wholesale and let the others entirely and severely alone as far as buying is concerned? Wouldn't your trade be better in the end? Wouldn't these amateurs become discouraged in raising for market in a short time and leave the field to those in the business as a business.

The experience we have had here this season is as follows: There were several amateurs who had a lot of pansies and who sold them at prices "way down" and what was the outcome? Pansies went down and could not be sold at prices which they ought to have brought, as far as wholesalers were concerned. At the present time sweet peas and some other annuals are in the same condition from the same cause.

I have nothing to say against the amateurs raising these things, it is their right, but I do say that the retailers should be more circumspect in buying of them in preference to professionals.

ALFRED B. COPELAND,
Springfield, Mass.

FERNS, ROSES, ETC.

We offer an extra fine stock of the following plants in best condition:

SILVER FEIN Fern argyrea.....\$1 to \$6 per 100
SHAKING FERN Pteris tremula.....\$1 to \$4 per 100
GOLDEN FEIN Fern macrocarpa aurea \$1 to \$6 per 100
N. NIEL ROSES, 2 & 3 in. pot plants, \$1 to \$6 per 100
Also Lamarque, Solfaire and Gloire de Dijon at same figures.

ADDRESS **NANZ & NEUNER,**
LOUISVILLE, KY.
Mention American Florist.

DRACENA (Cordylina) INDIVISA.

1000 seeds 50c.; 10,000 seeds \$4.00; 100,000 \$35.00. Pot plants, per 100, \$2.00.
COPALUM ORIENTALE, n. pl. Perennial French Immortelles, 1000 seeds, 25c.; 10,000 seeds, \$2.50; 100,000 seeds \$25.00.
All fresh imported seeds 1897 grown. Catalogue of Erfurt Seeds, Palms, Bulbs, Plants, Makart Bouquets, Florist's Sundries, etc. on application.
C. M. HILDESHEIM, Baltimore, Md.

FINE FORCING ROSES GOOD, HEALTHY STOCK.

4-INCH.		
Perle des Jardins,	-	12 cts.
Papa Gontier,	-	10 cts.

3-INCH.		
Perle des Jardins,	-	8 cts.
Mme. Watteville,	-	8 cts.
Mme. Cusin,	-	8 cts.
La France,	-	8 cts.
Sunset,	-	8 cts.
Duchess of Albany,	-	10 cts.

2½-INCH.		
La France,	-	4 cts.
Mme. Hoste,	-	7 cts.

HILL & CO., RICHMOND, IND.,
WHOLESALE FLORISTS.

HYDRANGEA GRANDIFLORA.

We ask the attention of Dealers and the Trade to our Large Stock of HYDRANGEA GRANDIFLORA, nice, well-grown plants at very low prices, viz:

HYDRANGEA GRANDIFLORA, 2 year, 2½-feet, strong. Price \$7.00 per hundred; \$60.00 per thousand.

HYDRANGEA GRANDIFLORA, 2 year, second size, 18 to 24-in., good. Price, \$6.00 per hundred; \$50.00 per thousand.

Samples on application. Correspondence solicited.

Address **THE DINGEE & CONARD CO., WEST GROVE, PA.**

GIDDINGS' SPECIAL OFFER OF WINTER BLOOMING ROSES, AND OTHER STOCK.

	Per doz.	Per 100
Allamanda, Hendersonii, 3½-in.....	\$2.00	\$
Asparagus tenuilimus, strong, 4-in.....	2.50	
Begonia, 5 vars., blooming, 3-in.....	1.00	7.50
" Snowdrop, 2½-in.....	.75	5.00
Cyperus alternifolius, 3-in.....	.75	5.00
Cactus Cereus grandiflora, etc. 3-in.....	1.10	7.50
Cræna indivia, 4-in.....	1.50	10.00
Euphorbia splendens, 2½-in.....	1.50	
" Jacquiniola, 3-in.....	1.00	7.50
" Poinsettia pulcherrima, 3½-in.....	.75	6.00
Hibiscus asperifolius, 4-in.....	1.00	7.50
" 3-in.....	.75	6.00
Lantana, best white, 3-in.....	.60	5.00
" white and pink, 3-in.....	.75	6.00
" Laetrimonia (Crape Myrtle), crimson, 3-in.....	1.50	10.00
Plumbago Capensis and " alba, 3-in.....	.40	3.00
Stephanotis floribunda, 3½-in.....	1.50	10.00
Ivy variegated and English, 3-in.....	.50	3.00
Fancy Caladiums, 4-in.....	3.00	
Smilax, 3-in.....	.40	3.00
" 2-in.....	.40	3.00

WINTER BLOOMING ROSES.
The Bride, Papa Gontier, Mermel, La France, 3-in..... 6.00
ROSES—Mme. Joseph Schwartz, 3-in..... 5.00
General Jacqueminot, 4-in..... 12.00
Hybrids, standard varieties, 3-in..... 6.00

A. GIDDINGS, Danville, Ill.

Mention American Florist.

PRIMULA SEED.

Primula Obconica.....	pkt. (1000 seeds),	\$.75
Primula Flabundula.....	pkt. (1000 seeds),	.25
Colerus Verschaffelti, Golden Bedder.....	per 100, 3 in	3.00
Colerus in variety.....	per 100, 3 in:	2.50
Alternanthera, 3 varieties.....	"	3.00

I. N. KRAMER & SON,
MARION, IOWA.

NEW SEEDLING CHRYSANTHEMUM "ORANGE BEAUTY."

This novelty has been in bloom with us last year from September until June and is now in full bloom. We can supply fine plants in 2½-inch pots at \$1.50 per 10 plants, or \$16 per 100. Also a large stock of Grand Duke Jasmine, 2½-inch pots, \$5.00, and 3½-in. pots, \$7.00 per 100. Jasmine multiflorum 2½-in. pots, \$3.50 per 100. Bouvardia Rockii and Cleveland, 2½-inch pots, \$3.00, and 3-inch pots, \$4.50 per 100. Allamanda Hendersonii, from 2½-in. pots, at \$7.00 per dozen, or \$70.00 per 100.

Terms, cash with order or satisfactory reference.
FRANCIS MORAT'S SONS & CO.,
LOUISVILLE, KY.



Florists find great profit in the **JAPAN SNOWBALL**. We have mainly introduced it, and have the largest stock in the world. Flowering plants for forcing, at low figures by the 100. We have many rare things suited to money-making florists.

Illustrated Catalogue 6 cents.
THOMAS MEEHAN & SON,
Germantown, Philadelphia.



TRY DREER'S GARDEN SEEDS

Plants, Bulbs, and Requisites. They are the best at the lowest prices. TRADE LIST issued quarterly, mailed free to the trade only.

HENRY A. DREER,
Philadelphia

DON'T FORGET to EXAMINE the exhibit of the Furman Boilers at the Boston Convention, Aug. 19, 20, 21 and 22.

HERENDEN MEYER & CO., Geneva, N. Y.

CONVENTION.

SPECIAL NOTICE!

**Northern, Southern, Eastern,
and Western, also Canadian
Visitors to the above are**

**CORDIALLY INVITED TO VISIT THE
UNITED STATES NURSERIES,
Short Hills, N. J.**

JAMES R. PITCHER.

W. ALBERT MANDA.

FLORAL * DESIGNS.

A book which tells how to make them and shows how they look. Fifty tinted plates of approved designs, in fine shape for showing to customers in place of the bare wire designs; it "gets there" much better, and looks pretty while doing it. It is a good investment for any working florist at **\$3.50**, postpaid, and can be had of

J. HORACE McFARLAND,
Box 55. HARRISBURG, PA.

LONG'S Floral Photographs.

These fine plates—seventy-five in number—are now offered to the Trade.

They will help you to better priced orders for designs, bouquets, etc., as they give customers an exact idea of what to expect for their money. They will educate to the making up of more stylish work.

ARTISTIC. BEAUTIFUL. PERFECT.
Write for Catalogue with full description and prices.

DAN'L B. LONG, Florist,
BUFFALO, N. Y.

SMILAX.

2000 EXTRA FINE PLANTS. 2000
Price, \$3.00 per 100; \$25.00 per 1000. All from 3-inch pots and warranted first-class.

20,000 Carnations, field grown. Ready in Sept.

GEO. E. BUXTON,
NASHUA, N. H.

A. BLANC, ENGRAVER FOR FLORISTS. PHILADELPHIA, PA.



Electro of this Cut, \$2.00.
LARGEST STOCK OF ELECTROTYPES OF PLANTS
AND FLOWERS FOR FLORISTS' CATALOGUES, ETC.
Complete Catalogues 50c. deducted from first order.
Agency for the sale of Electros of MESSRS. VIL-
MORIN ANDRIEUX & CO., (Paris.)

CATALOGUES.

FLORISTS
and
SEEDSMEN

write to
The Aldine Printing Works, Cincinnati, O.,
for samples and prices before ordering
elsewhere.

(Mention The American Florist.)

Fall Catalogues

in best style, with plenty of
good cuts, made promptly.
Write about them now.

Talk at Boston

about any printing you want.
I expect to be there, and will
be glad to give any desired
information.

J. HORACE McFARLAND,
PRINTER for NURSERYMEN, SEEDSMEN and FLORISTS
HARRISBURG, PA.



SOLD

BY

Seedsman



MUSHROOM SPAWN GENUINE MILLER'S

10 lbs. 25 lbs. 50 lbs. 100 lbs.
\$1.25 \$2.75 \$5.00 \$9.00

JOHN GARDNER & CO.
PHILADELPHIA, PA.

EXAMINE CRITICALLY the Furman Boilers
which will be on exhibit at the Boston Con-
vention, August 19, 20, 21 and 22.

HERENDEN MFG CO., Geneva, N. Y.

Foreign Notes.

MR. GEORGE DEAL, for many years a prominent figure in the English horticultural world, died June 30, aged 56 years.

MR. FRANCIS DANCER, formerly one of the noted market gardeners of Middlesex, England, died June 29, aged 75.

ROSE SHOWS in England extend well into July. The great event of the rose season, the National Rose Society's Metropolitan Exhibition, was held at the Crystal Palace, Sydenham, on July 5.

THE FUNERAL of the late B. S. Williams was attended by over 400 friends who had assembled to pay their last respects to a man they held in sincere esteem.

REGARDING large attendances at flower shows, it is said that at the Shrewsbury Floral Fete in 1888 there was a total attendance of nearly 55,000 in two days, the receipts being nearly \$14,000.

HORTICULTURAL SUPPLIES.

We carry a Complete Line of all the NEWEST AND BEST HORTICULTURAL TOOLS and other supplies. Our Special Circular describes them all. Send for it Free. Send also for our Special Poultry Supply circular FREE, for most complete SEED CATALOGUE published.

JOHNSON & STOKES,
217 and 219 Market St., Philadelphia, Pa.



Ventilator Machinery

FOR ALL CLASSES OF GREENHOUSES
EITHER FOR TOP OR SIDES.

Awarded the only Certificate of Merit at Buffalo Convention.

Patented Dec. 10, 1889.

Write for Catalogue before ordering elsewhere.

E. HIPPARD,
YOUNGSTOWN, O.

DID YOU SAY

You have not tried HUGHES' SOLUBLE

FIR TREE OIL,

And that you want an effective Insecticide, then do what other florists of experience and wisdom have done before you, and order at once a trial gallon. Read the previous numbers of the FLORIST to find out what it will do. Dozens and dozens of American testimonials have confirmed what I claim for it.

E. GRIFFITH HUGHES,

Operative Chemist:

MANCHESTER, ENGLAND.

PRICE: { Put up in 1 gallon tins, \$3.25 } in New York
{ Put up in 1 quart tins, \$1.00 }

TO SECURE THE GENUINE ARTICLE, see that each tin shows a white label with red trade mark, full directions how to use and the name of

AUGUST RÖLKER & SONS,

Sole Agents for America,

New York Depot, 136 W. 24th STREET.

STANDARD POTS

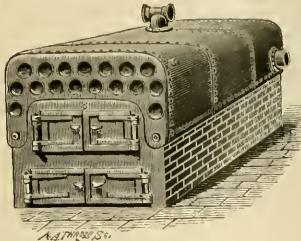
made by the latest improved machinery, are better and cheaper than those made by the old way. Price, P.O. & cars here, free of charge:
2-inch, per 100, \$3.25 7-inch, per 100, \$ 3.50
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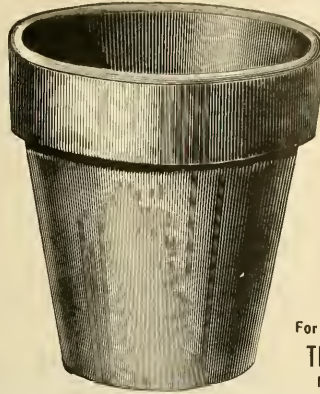
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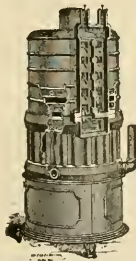
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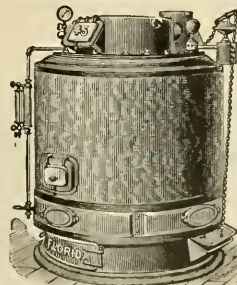
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Index to Advertisers.

Advertising Rates, etc.	150
Aldine Printing Wks.	121
Allen, W. S.	121
Astoria Nurseries	121
Ball Chas. D.	121
Bayerdorfer H. & Co.	121
Berges H. H. & Co.	121
Black A. & Co.	121
Block Wm. A.	121
Brackridge & Co.	121
Brown & Canfield	121
Buxton Geo. E.	121
Carmody J. D.	121
Chitty H. E.	121
Demill Joseph	121
De Voe J. A.	121
Devine's Boiler Wks.	121
Diez John L. & Co.	121
Dillon, J. L.	121
Dingee & Conard Co.	121
Dreer, H. A.	121
Fisher Bros. & Co.	121
Fisk Chas. H.	121
Flower Exchange	121
Free & Gresseng	121
Gardiner J. & Co.	121
Giddings A.	121
Gonzales F. & Co.	121
Greene W. S. & Son	121
Hayden	121
Griffin, N. S.	121
Hall Association	121
Hales, H. W.	121
Hallack, V. H. & Son	121
Hammond, Ben.	121
Hammond & Hunker	121
Hartman Mfg. Co.	121
Hartland W. B.	121
Heisl Joseph	121
Henderson John Co.	121
Henneguin Denis & Co.	121
Heredean Mfg. Co.	121
Herr, A. H.	121
Hildebrand C. M.	121
Hillinger Bros.	121
Hill & Co.	121
Hippard E.	121
Hitchings & Co.	121
Hooker, H. M.	121
Hudson John M.	121
Horan, Edw. C.	121
Hoyt R. D.	121
Hudson John M.	121
Hughes E. G.	121
Hulsebosch A.	121
Hunt E. H.	121
Hunt M. A.	121
Jennings E. B.	121

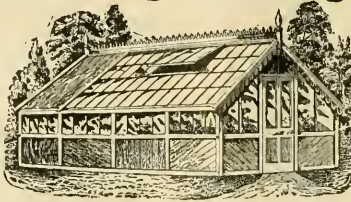
Johnson & Stokes	121
Josson C. H.	121
Jurgens W. A.	121
Kennett Bros.	121
Kramer I. N. & Son	121
Krick, W. C.	121
La Roche & Stahl	121
Lockland Lumber Co.	121
Lombard R. T.	121
Long Daniel B.	121
Lonsdale Edw.	121
McCarthy N. F. & Co.	121
McFarland J. H.	121
Mathews, Wm.	121
Mechan Thos. & Son	121
Mette Henry J.	121
Michel Plant & Seed Co.	121
Miller, Geo. W.	121
Morris F. Sons & Co.	121
Mullen Geo.	121
Nanz & Neuner	121
National Hot Water Heater Co.	121
Pennock Chas. E.	121
Pierce Butler & Plores	121
Pieron F. R. & Co.	121
Pitcher & Mandis	121
Plenty, Josephus	121
Quaker City Mch. Wks.	121
Reed & Keller	121
Romer Fred.	121
Rolker A. & Sons	121
Rupp John P.	121
Schulz Jacob	121
Scollay John A.	121
Schmidt W. R.	121
Sheridan W. F.	121
Siebrecht Wadley	121
Sievers John H.	121
Sipple Dottie & Co.	121
Sitinations, Wm.	121
Spencer John H.	121
Stearns A. Lumber Co.	121
Steffens N.	121
Stewart, Wm. J.	121
Strass C. & Co.	121
Taylor John H.	121
Van der Schoot & Son	121
Vaughan J. C.	121
Weathered, Thos. W.	121
Welch Bros.	121
Whilldin Pottery Co.	121
Williams H. W. & Son	121
Wisconsin Flower Ex.	121
Wolf L. Mfg. Co.	121
Wood Bros.	121
Young, Thos. Jr.	121
Zirngibbel D.	121

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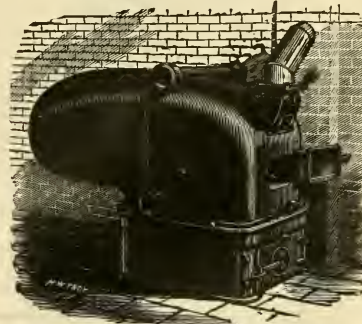


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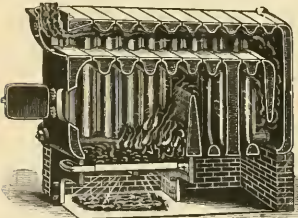
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BALL PLAYERS OBSERVE.—There will be a game of ball in Boston—home club vs. the visitors—all those that will want to play please see Wm. P. Craig or Joseph Manda, Jr., at the Exhibition Hall, Boston.

ST. PAUL, MINN.—Mr. Leonard C. Chapin, the Lincoln, Neb., florist, was married to Miss Mila H. Atherton in this city July 23. The floral decorations at the wedding were very elaborate.

TRENTON, N. J.—The recent hail storm did serious damage here. Mr. John Savage lost about half of his glass and Messrs. Geo. Wainwright and W. J. Chinick about one-third of theirs.



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